Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name:	**Westlake Chlor-Alkali & Olefins Corporation** **Westlake Monomers Corporation**
Mailing Address:	**P.O. Box 712, Calvert City, KY 42029**
Source Name:	**Westlake Chlor-Alkali & Olefins Corporation** **Westlake Monomers Corporation**
Mailing Address:	**P.O. Box 712, Calvert City, KY 42029**
Source Location:	**2672 Industrial Parkway, Calvert City, Kentucky 42029**
Permit Type:	**Federally-Enforceable**
Review Type:	**Title V, NSPS, NESHAP, MACT, Synthetic Minor**
Permit Number:	**V-00-022**
Log Number:	**F903**
Application Complete Date:	**April 5, 2000**
KYEIS ID #:	**072-2600-0039**
AFS Plant ID #:	**21-157-00039**
SIC Code:	**2812, 2869**
Region:	**Paducah**
County:	**Marshall**
Issuance Date:	**June 30, 2000**
Expiration Date:	**June 30, 2005**

John E. Hornback, Director
Division for Air Quality

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be complete on April 5, 2000 the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

INDEX OF EMISSION POINTS LISTED IN SECTION B

WESTLAKE CHLOR-ALKALI AND OLEFINS PLANT

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

INDEX OF EMISSION POINTS LISTED IN SECTION B

WESTLAKE MONOMERS PLANT

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

A. CHLOR-ALKALI PLANT:

(011) **Boiler #4 -**

Type:	Combustion Engineering, 28 VP - 12WL
Capacity:	120.0 mmBTU/hr
Primary fuels:	Hydrogen, Process Fuel Gas
Secondary fuel:	Natural Gas and Propane
Date of construction:	1966
Source of Emissions:	Fuel combustion (no controls)

APPLICABLE REGULATIONS:

401 KAR 61:015, *Existing indirect heat exchangers*, applies to Boiler #4.

1. Operating Limitations: None

2. Emission Limitations:

For any combination of fuels -

Mass Emission Limits:

a. Emissions of particulate matter shall not exceed 0.16 lb/mmBTU [401 KAR 61:015, Section 4 (1) and Permit O-88-040].
b. Emissions of sulfur dioxide shall not exceed 0.33 lb/mmBTU [401 KAR 61:015, Section 5 (1) and Permit O-88-040].
c. Emissions of particulate matter shall not exceed 80.2 tons during any twelve (12) consecutive months [*Synthetic Minor Limit*, Permit O-88-040].
d. Emissions of sulfur dioxide shall not exceed 165.4 tons during any twelve (12) consecutive months [*Synthetic Minor Limit*, Permit O-88-040].

Visible Emission Limits:

For any fuel used, the opacity of visible emissions shall not exceed 20 percent [401 KAR 61:015, Section 4 (2)] except as provided below:

a. Pursuant to 401 KAR 61:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
b. Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method:

Mass Emission Limits:

For particulate matter and SO_2:

a. Burning only the fuels specified in this permit shall be deemed to be compliance with the applicable performance standards (lb/mmBTU limits).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

A. CHLOR-ALKALI PLANT:
(011) **Boiler #4 -**

2. Emission Limitations: (continued)
Compliance Demonstration Method: (continued)

b. Compliance with the annual particulate matter and SO_2 emission limits (tons per year) shall be determined through the following formula:

Actual Annual Emissions of $PM/PM_{10}/SO_2$ (tpy) =
φ [Amount of each fuel used per year x Emission factor for $PM/PM_{10}/SO_2$ (in lbs/ft^3 or lbs/gallon of that fuel)] / 2000 (lb/ton)

The permittee shall calculate and maintain records of the monthly emissions of $PM/PM_{10}/SO_2$ and the 12-month rolling total of emissions for each pollutant.

c. In the 18-month period immediately preceding the date of expiration of this permit, the permittee shall analyze a representative sample of each fuel used for sulfur content.

Opacity Limits:
For each boiler, no compliance demonstration is necessary while Hydrogen, Process Fuel Gas, Natural Gas and Propane are the only fuels burned.

3. Testing Requirements:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
The permittee shall monitor the fuel consumption of each of the fuels (Hydrogen, Process Fuel Gas, Natural Gas and Propane) used at Boiler #4.

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the monthly consumption records for each type of fuel used at Boiler #4.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: Not applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

A. CHLOR-ALKALI PLANT:

(801) Salt Handling and Transfer Operations:
Current maximum salt throughput - 233,280 tons per year
Future maximum salt throughput - 405,000 tons per year

(801A) Salt Hopper
(801B) Conveyor Belt Transfer
(801C) Stockpile Loading Operations
(801D) Stockpile Storage - Wind Erosion

APPLICABLE REGULATIONS:

401 KAR 63:010, *Fugitive emissions*, applies to the Salt Handling and Transfer Operations.

1. Operating Limitations: None

2. Emission Limitations:

All reasonable measures shall be taken to prevent particulate matter from becoming airborne at all times [401 KAR 63:010, Section 3(1)]. These measures shall include, but are not limited to the following:

a. Use of plastic strips or curtains (or equivalent) to minimize fugitive emissions by wind dispersion at the stockpile stacker.

If the salt throughput is increased beyond 233,280 tpy, the permittee shall implement the following additional measures to minimize fugitive emissions:

b. Use of a wet suppression system at the transfer point from the salt hopper to the covered transfer conveyor. The system shall use a freeze-proof surfactant (or an equivalent dust suppressant) as the suppression agent.

Compliance Demonstration Method:

The wet suppression system shall be interlocked with the transfer conveyor so that the conveyor will not operate if the wet suppression system is not operational.

3. Testing Requirements:

See General Condition **G**. (d).

4. Specific Monitoring Requirements: None

5. Specific Recordkeeping Requirements:

The permittee shall keep monthly records of the amount of salt unloaded.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(813) Sodium Hypochlorite (Chlorine Conversion/Neutralization) Tower

Description - Vent streams containing chlorine from various process equipment are collected and vented through the Sodium Hypochlorite Tower. This tower is a packed bed scrubber using sodium hydroxide solution to neutralize the chlorine in the scrubber. The vent streams controlled include vapors from the CA&O chlorine production process equipment, Westlake Monomers chlorine barge and railcar loading/unloading operations, and Westlake Monomers chlorine storage bullets.

(887) HCl Synthesis Scrubber (*to be constructed*)

(877) Atmospheric Scrubber (*to be constructed*)

Description - Upon installation, this scrubber will control chlorine emissions from the following sources (*to be constructed*);

- Ammonia Removal Tank
- Brine Head Tank
- Ultra Pure Brine Tank
- Dechlorination Brine Tank
- Sludge Storage Tank
- Spent Sulfuric Tank
- Analyte Blowdown Tank
- Miscellaneous continuous process tank vents

APPLICABLE REGULATIONS:

Regulation 401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to the chlorine emissions from the three scrubbers listed above.

1. Operating Limitations:

For 887 - The HCl Synthesis Unit shall be designed as an integral furnace, absorber, and scrubber such that the unit will shutdown in case of burner or absorber/scrubber failure.

Compliance Demonstration Method:

The permittee shall maintain records of the design specifications for the HCl Synthesis Unit documenting that the operating limitations specified above have been incorporated into the design of the unit.

2. Emission Limitations: None

3. Testing Requirements:

a. Pursuant to Regulations 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

b. See General Condition **G**. (d).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(813) Sodium Hypochlorite (Chlorine Conversion/Neutralization) Tower
(887) HCl Synthesis Scrubber (*to be constructed*)
(877) Atmospheric Scrubber (*to be constructed*)

4. Specific Monitoring Requirements:

i. For the Sodium Hypochlorite (813) Scrubber, the permittee shall maintain, calibrate and operate according to manufacturer=s specification, a monitoring device for the continuous measurement of the oxidation reduction potential (ORP).

ii. Upon construction of the Atmospheric Scrubber (877), the permittee shall maintain, calibrate and operate according to manufacturer=s specification, a monitoring device for the continuous measurement of the differential static pressure across the scrubber.

5. Specific Recordkeeping Requirements:

The permittee shall maintain continuous records of the following information:

i. The oxidation reduction potential at the Sodium Hypochlorite Scrubber (813).

ii. The differential static pressure across the Atmospheric Scrubber (877).

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

i. For the Sodium Hypochlorite (Chlorine Conversion/Neutralization) Tower:
The scrubber shall be operated at a maximum oxidation reduction potential (ORP) of 1000 mV (3-hour average). An **excursion** from the operating range specified above is any 3-hour period during which the 3-hour average ORP was above the maximum specified.

ii. For the Atmospheric Scrubber:
Upon construction of the Atmospheric Scrubber, an appropriate operating range shall be established. The permittee shall submit to the Division, in writing, an application for the appropriate operating range to be included in this permit.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(814 A/B) Hydrogen System Emergency Vents

Description - The hydrogen gas stream from the Chlorine Plant is treated in condensers and a carbon bed to remove mercury vapors from the vent. The hydrogen stream is then handled in one of the following ways:
(1) Sold off-site via pipeline.
(2) Burned in Boiler #4.
(3) Burned in Ethylene Cracking Furnaces #8 or #9.
(4) In case of a compressor failure, the hydrogen stream is vented to the atmosphere via one of the hydrogen vents. This emission point represents those emissions. Additionally, during start-up, the hydrogen stream is vented to the atmosphere via these vents.

APPLICABLE REGULATIONS:
401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart E, *National emission standard for mercury*, applies to the hydrogen gas stream from the chlorine plant.

1. Operating Limitations: None

2. Emission Limitations:
Emissions of mercury to the atmosphere from the Chlor-Alkali plant shall not exceed 2300 grams per 24-hour period [40 CFR 61.52 (a)].

Compliance Demonstration Method:
Compliance with the mercury emission limit shall be demonstrated by maintaining records of the compliance test required by and performed in accordance with 40 CFR 61.55 (b).

3. Testing Requirements:
Pursuant to Regulations 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
a. 40 CFR 61.55 (b)(4)(i) - The permittee shall monitor at least once per hour the following parameters:
   i. The outlet temperature of the gas stream from the final condenser [40 CFR 61.55 (b)(2)(iii)].
   ii. The inlet gas temperature of the carbon adsorption system [40 CFR 61.55 (b)(2)(vi)].
b. The monitoring devices used shall be certified by their manufacturer to be accurate to within 10 percent, and shall be operated, maintained, and calibrated according to manufacturer=s instructions. Records of the certifications and calibrations shall be retained and made available for inspection [40 CFR 61.55 (b)(5)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(814 A/B) Hydrogen System Emergency Vents (continued)

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the results of the emission tests required by 40 CFR 61.53 (b)(1) and other data needed to determine total emissions of mercury from the Chlor-Alkali plant [40 CFR 61.53 (b)(5)].

b. 40 CFR 61.55 (b)(4)(i) - The permittee shall record manually or automatically at least once per hour the following parameters:

i. The outlet temperature of the gas stream from the final condenser [40 CFR 61.55 (b)(2)(iii)].

ii. The inlet gas temperature of the carbon adsorption system [40 CFR 61.55 (b)(2)(vi)].

6. Specific Reporting Requirements:

a. 40 CFR 61.55 (b)(6)(i) - When the hourly value of the parameters monitored in accordance with **4.a.** and **4.b.** above falls below the value of that same parameters determined during the mercury emission test for 24 consecutive hours, the permittee shall notify the division=s Paducah Regional Office with the next 10 days.

b. 40 CFR 61.55 (b)(7) - Semiannual reports shall be submitted to the division indicating :

i. The time and date on which the hourly value of each parameter monitored according to **4.a.** and **4.b.** fell outside the value of that same parameter determined during the mercury emission test; and

ii. The corrective action taken, and the time and date of the corrective action.

Parameter excursions will be considered unacceptable operation and maintenance of the emission control system. In addition, while compliance with the emission limits is determined primarily by conducting a performance test according to the procedures in 40 CFR 61.53(b), reports of parameter excursions may be used as evidence in judging the duration of a violation that is determined by a performance test.

c. 40 CFR 61.55 (b)(8) - The semiannual reports required shall be submitted to the division on September 15 and March 15 of each year. The semiannual report due on September 15 (March 15) shall include all excursions monitored through August 31 (February 28) of the same calendar year. Upon approval by the division=s Paducah Regional Office, an alternate schedule may be used to submit the semi-annual reports.

7. Specific Control Equipment Operating Conditions: Not applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(818) Mercury Fume Treatment System
Controls: Wet Scrubber

APPLICABLE REGULATIONS:
401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart E, *National emission standard for mercury*, applies to the Mercury Fume Treatment System.

1. Operating Limitations: None

2. Emission Limitations:
Emissions of mercury to the atmosphere from the Chlor-Alkali plant shall not exceed 2300 grams per 24-hour period [40 CFR 61.52 (a)].

Compliance Demonstration Method:
Compliance with the mercury emission limit shall be demonstrated by maintaining records of the compliance test required by and performed in accordance with 40 CFR 61.55 (b).

3. Testing Requirements:
Pursuant to Regulations 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
a. 40 CFR 61.55 (b)(4)(i) - The permittee shall monitor at least once per hour the following parameters for the wet scrubber on the Mercury Fume Treatment System:
   i. The outlet concentration of available chlorine or oxidation reduction potential (ORP) [40 CFR 61.55 (b)(2)(iv)].
   ii. The pH [40 CFR 61.55 (b)(2)(iv)].
   iii. The inlet gas temperature [40 CFR 61.55 (b)(2)(iv)].
   iv. The scrubbing liquid flowrate.
b. The monitoring devices used shall be certified by their manufacturer to be accurate to within 10 percent, and shall be operated, maintained, and calibrated according to manufacturer=s instructions. Records of the certifications and calibrations shall be retained at the chlor alkali plant and made available for inspection [40 CFR 61.55 (b)(5)].

5. Specific Recordkeeping Requirements:
a. The permittee shall maintain records of the results of the emission tests required by 40 CFR 61.53 (b)(1) and other data needed to determine total emissions of mercury from the Chlor-Alkali plant [40 CFR 61.53 (b)(5)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(818) Mercury Fume Treatment System

5. Specific Recordkeeping Requirements: (continued)

b. 40 CFR 61.55 (b)(4)(i) - The permittee shall record manually or automatically at least once per hour the following parameters:
   i. The outlet concentration of available chlorine or oxidation reduction potential [40 CFR 61.55 (b)(2)(iv)].
   ii. The pH [40 CFR 61.55 (b)(2)(iv)].
   iii. The inlet gas temperature [40 CFR 61.55 (b)(2)(iv)].
   iv. The scrubbing liquid flowrate.

c. 40 CFR 61.55 (b)(5) - The permittee shall maintain records of the following information:
   i. Manufacturer certification for each monitoring device as long as the device is used for the purpose of monitoring.
   ii. Calibration of the monitoring devices.

6. Specific Reporting Requirements:

a. 40 CFR 61.55 (b)(6)(i) - When the hourly value of the parameters monitored in accordance with **4. a.** above falls below the value of that same parameters determined during the mercury emission test for 24 consecutive hours, the permittee shall notify the division=s Paducah Regional Office with the next 10 days.

b. 40 CFR 61.55 (b)(7) - Semiannual reports shall be submitted to the division indicating :
   i. The time and date on which the hourly value of each parameter monitored according to **4.a.** fell outside the value of that same parameter determined during the mercury emission test; and
   ii. The corrective action taken, and the time and date of the corrective action.

   Parameter excursions will be considered unacceptable operation and maintenance of the emission control system. In addition, while compliance with the emission limits is determined primarily by conducting a performance test according to the procedures in 40 CFR 61.53(b), reports of parameter excursions may be used as evidence in judging the duration of a violation that is determined by a performance test.

c. 40 CFR 61.55 (b)(8) - The semiannual reports required shall be submitted to the division on September 15 and March 15 of each year. The semiannual report due on September 15 (March 15) shall include all excursions monitored through August 31 (February 28) of the same calendar year. Upon approval by the division=s Paducah Regional Office, an alternate schedule may be used to submit the semi-annual reports.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(818) Mercury Fume Treatment System

7. Specific Control Equipment Operating Conditions:

For the mercury fume treatment system scrubber:

a. The scrubber shall be operated at a maximum pH of 8.9 (24-hour average). An **excursion** from the operating range specified above is any 24-hour period during which the average pH of the scrubbing liquid to the scrubber was above the maximum specified.

b. The scrubber shall be operated at a maximum inlet gas stream temperature of 128°F (24-hour average). An **excursion** from the operating range specified above is any 24-hour period during which the average inlet gas stream temperature was above the maximum specified.

c. The scrubber shall be operated at a minimum available chlorine value of 549.2 mV (24-hour average). An **excursion** from the operating range specified above is any 24-hour period during which the average available chlorine value was below the minimum specified.

d. The scrubber shall be operated at a minimum scrubbing liquid flow rate of 3.8 gallons per minute (24-hour average). An **excursion** from the operating range specified above is any 24-hour period during which the average scrubbing liquid flow rate was below the minimum specified.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(826) Cell Room Roof Vents

APPLICABLE REGULATIONS:
401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart E, *National emission standard for mercury*, applies to the Cell Room Roof Vents.

1. Operating Limitations:
40 CFR 61.53 (c)(4) - The permittee shall carry out the approved design, maintenance, and housekeeping practices specified in Appendix A of A*Review of National Emission Standards for Mercury*≅ (EPA-450/3-84-014a, December 1984).

2. Emission Limitations:
Emissions of mercury to the atmosphere from the Chlor-Alkali plant shall not exceed 2300 grams per 24-hour period [40 CFR 61.52 (a)].

Compliance Demonstration Method:
Compliance with the mercury emission limit shall be demonstrated by maintaining the records required by 40 CFR 61.55 (d).

3. Testing Requirements:
Pursuant to Regulations 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements: None

5. Specific Recordkeeping Requirements:
40 CFR 61.55 (d)(1) - The permittee shall maintain daily records of all leaks or spills of mercury. The records shall indicate:

i. The amount, location, time, and date the leaks or spills occurred;
ii. Identify the cause of the leak or spill;
iii. State the immediate steps taken to minimize mercury emissions;
iv. Steps taken to prevent future occurrences; and
v. Provide the time and date on which the corrective steps were taken.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(CA-2) Cell Room Operations (Nitrogen Trichloride Eliminator)

The Nitrogen Trichloride Eliminator is part of the chlor-alkali cell room operations. Fugitive emissions of carbon tetrachloride are released from the system through the following pipeline equipment:

22 Valves
88 Flanges
2 Pressure Relief Valves
1 Pump

Note: The pipeline equipment count listed above are approximate. The permittee may add or remove pipeline equipment without a permit revision as long as the modification does not trigger new applicable requirements.

APPLICABLE REGULATIONS: None

1. Operating Limitations: None

2. Emission Limitations: None

3. Testing Requirements: None

4. Specific Monitoring Requirements: None

5. Specific Recordkeeping Requirements: None

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A. CHLOR-ALKALI PLANT:

(849) No. 5 Cooling Tower (CA-6)
- 2 cells with recirculation in each cell 13,000 gallons/minute (*new circulation rate*)
- Equipped with mist eliminator

APPLICABLE REGULATIONS:
401 KAR 63:010, *Fugitive emissions*, applies to each of the cooling tower listed above.

1. Operating Limitations:
None

2. Emission Limitations:
All reasonable measures shall be taken to prevent particulate matter from becoming airborne from the cooling tower at all times [401 KAR 63:010, Section 3(1)]. These measures shall include, but are not limited to the following:
If the water circulation rate through the cooling tower exceeds 10,000 gallons per minute, the permittee shall implement the following measures:
The Cooling Tower (849) shall be equipped with a mist eliminator.

3. Testing Requirements:
For the Cooling Tower (849), see General Condition **G**. (d).

4. Specific Monitoring Requirements:
None

5. Specific Recordkeeping Requirements:
None

6. Specific Reporting Requirements:
None

7. Specific Control Equipment Operating Conditions:
None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(305-311) Seven (7) Propane Cracking Furnaces:

Rating:	60.0 mmBTU/hr each
Primary Fuel:	Process fuel gas
Secondary Fuel:	Natural gas, propane
Date of construction:	1963

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(327-328) Two (2) Propane Cracking Furnaces:
Rating: 95.0 mmBTU/hr each
Fuel: Process fuel gas
Date of construction: 1976

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(319) Gasoline Storage Tank (TK 904A):
259, 308 gallon capacity
Internal Floating Roof
Date of construction: 1963

(320) Gasoline Storage Tank (TK 904B):
259, 308 gallon capacity
Internal Floating Roof
Date of construction: 1963

APPLICABLE REGULATIONS: None

1. Operating Limitations: None

2. Emission Limitations: None

3. Testing Requirements: None

4. Specific Monitoring Requirements: None

5. Specific Recordkeeping Requirements: None

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(321) **Ethylene Flare**

Type:	John Zink, continuously operated, steam assisted
Auxiliary Fuel:	Process Fuel Gas and/or Natural Gas
Rating:	5,750 mmBTU/hr
Constructed:	1991 (new flare tip in 1995)

Description - The Ethylene Plant flare is used to burn hydrocarbon streams from Westlake CA&O=s Ethylene plant and the contiguous APT, LLC plant. The flare routinely burns excess plant process gas, tank car loading/unloading ventings, and vents from various tanks in the plant. It also burns relief valve ventings and equipment ventings during emergency shutdowns of the Ethylene plant. Emissions from the following units are routed to the flare:

TK 191 - Process Sewer Accumulation Tank
TK 198B - Neutralization Tank
TK 160 - Process Tank
Process Vents from APT, LLC plant
TK 198A - Neutralization Tank
TK 940 - Process Tank
TK 211 - Water Collection
Process Vents from Tank Truck, Tank Car, and Barge Unloading and Loading Operations

APPLICABLE REGULATIONS:

a. 401 KAR 63:015, *Flares*, applies to the Ethylene Flare.
b. 401 KAR 60:005, which incorporates by reference federal regulation 40 CFR 60 Subpart NNN, *Standards of performance for VOC emissions from synthetic organic chemicals manufacturing industry distillation operations*, applies to the distillation columns in the APT, LLC plant which are vented to the Ethylene Flare.

1. Operating Limitations:

a. The permittee shall operate the flare with a flame present at all times [40 CFR 60.18(b)(2)].
b. The permittee shall operate the flare with a minimum net heating value of the gas being combusted of 11.2 MJ/scm (300 BTU/scf). The net heating value of the gas shall be determine by the methods specified in 40 CFR 60.18(f)(3) [40 CFR 60.18(c)(3)(ii)].
c. The permittee shall operate the flare with an exit velocity in compliance with 40 CFR 60.18 (c)(4) or (5).

2. Emission Limitations:

Visible emissions from the ethylene flare shall not exceed twenty (20) percent opacity for more than three (3) minutes in any one (1) day [401 KAR 63:015, Section 3].

Compliance Demonstration Method:

Compliance with the flare standards contained in 40 CFR 60.18 (c) through (f) shall be deemed compliance with the visible emissions standard.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(321) Ethylene Flare

3. Testing Requirements: None

4. Specific Monitoring Requirements:

The permittee shall install and maintain a thermocouple or any other equivalent device to monitor the presence of a pilot flame in the flare [40 CFR 60.18 (f)(2)].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records as required by 40 CFR 60.18 (c)-(f).
b. The permittee shall maintain records of all routine and non-routine maintenance activities performed at the flare.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions:

The permittee shall comply with 40 CFR 60.18 (c)-(f).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(321) Various Equipment in Benzene NESHAP Service throughout the Ethylene Plant

Description - This emission point includes various pieces of process equipment that contain at least 10 % benzene by weight. Construction commenced: 1963.

APPLICABLE REGULATIONS:
401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart J, *National emission standard for equipment leaks (fugitive emission sources) of benzene,* applies to the various equipment in benzene service.

1. Operating Limitations:

For the pipeline equipment in benzene service, the permittee shall implement and maintain a leak detection and repair (LDAR) program in accordance with 40 CFR 61 Subpart V [40 CFR 61.112 (a)].

2. Emission Limitations:

a. The permittee shall comply with the provisions of 40 CFR 61 Subpart V as they apply to each of the following sources that are intended to operate in benzene service:
   i. For pumps, in accordance with 40 CFR 61.242-2.
   ii. For compressors, in accordance with 40 CFR 61.242-3.
   iii. For pressure relief devices in gas/vapor service, in accordance with 40 CFR 61.242-4.
   iv. For sampling connection systems, in accordance with 40 CFR 61.242-5.
   v. For open-ended valves or lines, in accordance with 40 CFR 61.242-6.
   vi. For valves, in accordance with 40 CFR 61.242-7.
   vii. For pressure relief devices in liquid service and flanges and other connectors, in accordance with 40 CFR 61.242-8.
   viii. For product accumulator vessels, in accordance with 40 CFR 61.242-9.
   ix. For closed-vent systems and control devices, in accordance with 40 CFR 61.242-11.

3. Testing Requirements:

The leak detection and repair (LDAR) program shall comply with the test methods and procedures described in 40 CFR 61.245.

4. Specific Monitoring Requirements:

For valves in benzene service, the permittee may continue the monitoring schedule currently established and in accordance with 40 CFR 61.243-2, *Alternative standards for valves in VHAP service*, skip period leak detection and repair.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(321) Various Equipment in Benzene NESHAP Service throughout the Ethylene Plant

5. Specific Recordkeeping Requirements:

a. For the equipment in benzene service, the permittee shall comply with the recordkeeping requirements described in 40 CFR 61.246.
b. The permittee may comply with the recordkeeping requirements for the sources listed above in one recordkeeping system if the system identifies each record by process unit and the program being implemented (e.g. quarterly monitoring, quality improvement) for each type of equipment. All records required by 40 CFR 61.246 shall be maintained in a manner that can be readily accessed at the plant site.
c. For visual inspections, the permittee shall document that the inspection was conducted and the date of the inspection.
d. When a leak is detected, the information specified in 40 CFR 61.246(c) shall be recorded.
e. For control devices, the permittee shall maintain records of the information specified in 40 CFR 61. 246(d).

6. Specific Reporting Requirements:

a. In accordance with 40 CFR 61.247 (b), for the benzene leak detection system, the permittee shall submit semi-annual reports that include the following information:
    i. Process unit identification.
    ii. For each month during the semi-annual reporting period:
        A. Number of valves for which leaks were detected as described in 40 CFR 61.242-7 (b).
        B. Number of valves for which leaks were not repaired as required in 40 CFR 61.242-7 (d).
        C. Number of pumps for which leaks were detected as described in 40 CFR 61.242-2 (b) and (d)(6).
        D. Number of pumps for which leaks were not repaired as described in 40 CFR 61.242-2 (c) and (d)(6).
        E. Number of compressors for which leaks were detected as described in 40 CFR 61.242-3 (f).
        F. Number of compressors for which leaks were not repaired as described in 40 CFR 61.242-3 (g).
b. The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.
    i. Dates of process unit shutdowns which occurred within the semi-annual reporting period.
    ii. The results of all performance tests and monitoring conducted to determine compliance with no detectable emissions and with 40 CFR 61.243-1 and 61.243-2 conducted during the semi-annual reporting period.

7. Specific Control Equipment Operating Conditions: Not applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(327, 328, or 321) Ethylene Wastewater Pre-treatment Plant (ET-1)

Description - The wastewater pre-treatment plant receives and treats wastewater from various processes within the Ethylene Plant in order to remove benzene from the wastewater prior to discharge to the facility-wide secondary wastewater treatment plant. Vents from this system are controlled by either #8 & # 9 furnaces (E.P.s 327 & 328) or by the Ethylene Flare (E.P. 321). The wastewater pre-treatment plant consists of 644 valves, 8 relief valves, 124 open end valves, 1936 flanges, 9 pumps and the following tanks:

TK-191	Equalization Tank (28,500 gals.)	TK-192A	Oil/Water Separator (11,800 gals.)
TK-192B	Oil/Water Separator (11,800 gals.)	TK-194A	Oil/Water Separator (3,100 gals.)
TK-194B	Oil/Water Separator (3,100 gals.)	TK-194C	Oil/Water Separator (3,100 gals.)
TK-195	Recovered Oil Tank (4,000 gals.)	TK-196	Oil Transfer Tank (2,000 gals.)
TK-198A	Caustic Neutralization Tank (7,000 gals.)		
TK-198B	Caustic Neutralization Tank (7,000 gals.)		
TK-201	Knockout Tank (1,000 gals.)	TK-202	Slop Oil Tank (1,000 gals.)
TK-211	Contaminated Water Collection Tank (650 gals.)		

Construction commenced: 1992.

APPLICABLE REGULATIONS:

a. 401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart FF, *National emission standard for benzene waste operations*, applies to the Ethylene Wastewater Pre-treatment Plant.
b. 401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart FF, *National emission standard for benzene waste operations*, applies to the following tanks - TK-191, TK-195, TK-196, TK-198A, TK-198B, TK-201, TK-202, and TK-211.
c. 401 KAR 60:005, which incorporates by reference federal regulation 40 CFR 60 Subpart Kb, *Standards of performance for volatile organic liquid storage vessels*, applies to the following tanks - TK-191.
d. 401 KAR 59:095, *New oil-effluent water separators*, applies to the following units - TK-192A, TK-192B, TK-194A, TK-194B, and TK-194C.

1. Operating Limitations: None

2. Emission Limitations:

a. 40 CFR 61.348 (a)(1)(i) - The concentration of benzene in the wastewater discharge from the Ethylene Wastewater Pre-treatment Plant shall not exceed 10 ppmw on a flow-weighted annual average basis.
b. 40 CFR 61.348 (a)(2) - The Ethylene Wastewater Pre-treatment Plant shall be designed and operated in accordance with the appropriate waste management standards specified in 40 CFR 61.343 through 61.347.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(327, 328, or 321) Ethylene Wastewater Pre-treatment Plant (ET-1)

2. Emission Limitations: (continued)

c. 40 CFR 61.348 (a)(3) - The intentional or unintentional reduction in the benzene concentration of a waste stream by dilution of the waste stream with other wastes or materials is not allowed.

d. 40 CFR 61.348 (a)(4) - The permittee may aggregate or mix together individual waste streams to create a combined waste stream for the purpose of facilitating treatment of waste to comply with the requirements of **2.**a. except as provided in 40 CFR 61.348 (a)(5).

e. For TK-192 A&B and TK-194 A,B, and C - Each of these vessels shall be equipped with a closed vent system and a control device. All gauging and sampling devices shall be gas-tight except when gauging and sampling are performed [401 KAR 59:095, Section 3].

Compliance Demonstration Method:

40 CFR 61.348 (c) - The permittee shall demonstrate that the Ethylene Wastewater Pre-treatment Plant is in compliance with the applicable emission limitations through the following methods:

i. Engineering calculations in accordance with requirements specified in 40 CFR 61.356(e); **OR**

ii. Performance tests conducted using the test methods and procedures that meet the requirements specified in 40 CFR 61.355.

3. Testing Requirements:

Any tests conducted for the purposes of determining compliance with 40 CFR 61, subpart FF shall follow the procedures described in 40 CFR 61.355.

4. Specific Monitoring Requirements:

a. The permittee shall sample and analyze, on a monthly basis, the treated wastewater exiting the pre-treatment system to determine the concentration of benzene in accordance with 40 CFR 61.354 (a)(1), **OR**

b. Install, calibrate, operate, and maintain according to manufacturer=s specifications equipment to continuously monitor and record a process parameter(s) for the wastewater pre-treatment system that indicates proper system operation [40 CFR 61.354 (a)]. The permittee shall inspect at least once each operating day the data recorded by this monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the unit is operating properly [40 CFR 61.354 (a)(2)].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records as required by 40 CFR 61.356.

b. The records shall be maintained in an accessible location at the facility site. [40 CFR 61.356 (a)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(327, 328, or 321) Ethylene Wastewater Pre-treatment Plant (ET-1)

5. Specific Recordkeeping Requirements: (continued)

c. For TK-191, the permittee shall keep readily accessible records of the following information:
   i. Records of tank dimensions and storage capacity [40 CFR 60.116b (b)].
   ii. Records of the liquid stored, period of storage and maximum TVP (true vapor pressure of the liquid during that period [40 CFR 60.116b (c)].

6. Specific Reporting Requirements:

a. The permittee shall submit an annual report to the division that updates the information initially submitted in accordance with 40 CFR 61.357 (a). The report shall include the following information:
   i. The total annual benzene quantity from facility waste determined in accordance with 61.355(a) of this subpart [40 CFR 61.357 (a)(1)].
   ii. A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of this subpart.
   iii. For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of this subpart the following information shall be added to the table:
      A. Whether or not the water content of the waste stream is greater than 10 %;
      B. Whether or not the waste stream is a process waste stream, product tank drawdown, or landfill leachate;
      C. Annual waste quantity for the waste stream;
      D. Range of benzene concentrations for the waste stream;
      E. Annual average flow-weighted benzene concentration for the waste stream; and
      F. Annual benzene quantity for the waste stream.

b. If the above information has not changed in the following year, the permittee may submit a statement to that effect.

c. The permittee shall submit a quarterly report to the division a certification that all of the required inspections have been carried out in accordance with the requirements of this subpart.

d. The permittee shall submit a quarterly report to the division in accordance with the reporting requirements of 40 CFR 61.357(d)(7) of this subpart.

7. Specific Control Equipment Operating Conditions:

See Ethylene Flare (321) requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(342) River Flare (ET-23)
18.0 mmBTU/hr, natural gas-fired

Description - The John Zink Model GV-ZTOF Hydrocarbon Vapor Combustion Unit burns the vent streams from the aromatic gasoline and ethylene fuel oil barge loading operations. It is a natural gas fired unit with a rated capacity burner of 18 mmBTU/hr

APPLICABLE REGULATIONS:
401 KAR 63:015, *Flares*, applies to the River Flare.

1. Operating Limitations: None

2. Emission Limitations:
Visible emissions from the River Flare shall not exceed twenty (20) percent opacity for more than three (3) minutes in any one (1) day [401 KAR 63:015, Section 3].

Compliance Demonstration Method:
Whenever waste gas is sent to the River Flare, the permittee shall perform the monitoring and recordkeeping requirements listed under **4. Specific Monitoring requirements** and **5. Specific Recordkeeping Requirements**.

3. Testing Requirements: None

4. Specific Monitoring Requirements:
Whenever waste gas is sent to the flare for combustion, the permittee shall monitor the flare for visible emissions and maintain the records described in item 5.a.

5. Specific Recordkeeping Requirements:

a. Whenever waste gas is sent to the flare for combustion, the permittee shall maintain the following records:
   i. Whether any air emissions were visible from the flare;
   If no visible emissions are observed, then no further observations or records are required. If visible emissions are observed, the permittee shall perform **one** of the following:
   ii. The permittee shall perform a Method 9 reading for the flare. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and the date of certification; **OR**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(342) River Flare (ET-23) (continued)

5. Specific Recordkeeping Requirements:

a. ii. The permittee shall observe and record in the daily log the following additional information regarding the flare:
   (1) The color of the emissions;
   (2) Whether the emissions were light or heavy;
   (3) The total duration of the visible emission incident;
   (4) The cause of the abnormal emissions; and
   (5) Any corrective actions taken.

b. The permittee shall maintain records of all routine and non-routine maintenance activities performed at the flare.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

B. ETHYLENE PLANT:

(364) Cooling Tower

APPLICABLE REGULATIONS:
401 KAR 63:010, *Fugitive emissions*, applies to Cooling Tower.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   All reasonable measures shall be taken to prevent particulate matter from becoming airborne from the cooling towers at all times [401 KAR 63:010, Section 3(1)].

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:** None

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(008) **Boiler #1 -**

Type:	Combustion Engineering, UP - 12WL
Capacity:	120.0 mmBTU/hr
Primary fuels:	Process Fuel Gas
Secondary fuel:	Natural Gas
Date of construction:	1963
Source of Emissions:	Fuel combustion (no controls)

(010) **Boiler #3 -**

Type:	Riley-Stoker, Rx 25 (converted)
Capacity:	110.0 mmBTU/hr
Primary fuels:	Process Fuel Gas
Secondary fuel:	Natural Gas
Date of construction:	1954
Source of Emissions:	Fuel combustion (no controls)

APPLICABLE REGULATIONS:
401 KAR 61:015, *Existing indirect heat exchangers*, applies to Boilers #1 and #3.

1. Operating Limitations: None

2. Emission Limitations:

FOR BOILER #1:

For any combination of fuels -

Mass Emission Limits:

a. Emissions of particulate matter shall not exceed 0.16 lb/mmBTU [401 KAR 61:015, Section 4 (1) and Permit O-88-040].
b. Emissions of sulfur dioxide shall not exceed 0.33 lb/mmBTU [401 KAR 61:015, Section 5 (1) and Permit O-88-040].
c. Emissions of particulate matter shall not exceed 50.6 tons during any twelve (12) consecutive months [*Synthetic Minor Limit*, Permit O-88-040].
d. Emissions of sulfur dioxide shall not exceed 104.0 tons during any twelve (12) consecutive months [*Synthetic Minor Limit*, Permit O-88-040].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

C. ENERGY AND ENVIRONMENTAL PLANT:

(008) **Boiler #1**
(010) **Boiler #3**

2. Emission Limitations: (continued)

FOR BOILER #3:

For any combination of fuels -

Mass Emission Limits:

a. Emissions of particulate matter shall not exceed 0.16 lb/mmBTU [401 KAR 61:015, Section 4 (1) and Permit O-88-040].
b. Emissions of sulfur dioxide shall not exceed 0.33 lb/mmBTU [401 KAR 61:015, Section 5 (1) and Permit O-88-040].
c. Emissions of particulate matter shall not exceed 57.7 tons during any twelve (12) consecutive months [*Synthetic Minor Limit*, Permit O-88-040].
d. Emissions of sulfur dioxide shall not exceed 118.9 tons during any twelve (12) consecutive months [*Synthetic Minor Limit*, Permit O-88-040].

FOR BOILERS #1 AND #3:

Visible Emission Limits:

For any fuel used, the opacity of visible emissions shall not exceed 20 percent [401 KAR 61:015, Section 4 (2)] except as provided below:

a. Pursuant to 401 KAR 61:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
b. Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method:

Mass Emission Limits:

For particulate matter and SO_2:

a. For each boiler, burning only the fuels specified in this permit shall be deemed to be compliance with the applicable performance standards (lb/mmBTU limits).
b. For each boiler, compliance with the annual particulate matter and SO_2 emission limits (tons per year) shall be determined through the following formula:

   Actual Annual Emissions of $PM/PM_{10}/SO_2$ (tpy) =
   φ [Amount of each fuel used per year x Emission factor for $PM/PM_{10}/SO_2$ (in lbs/ft^3 or lbs/gallon of that fuel)] / 2000 (lb/ton)

   The permittee shall calculate and maintain records of the monthly emissions of $PM/PM_{10}/SO_2$ and the 12-month rolling total of emissions for each pollutant.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

C. ENERGY AND ENVIRONMENTAL PLANT:

(008) **Boiler #1**
(010) **Boiler #3**

2. Emission Limitations: (continued)

Compliance Demonstration Method:

c. In the 18-month period immediately preceding the date of expiration of this permit, the permittee shall analyze a representative sample of each fuel used for sulfur content.

Opacity Limits:

For each boiler, no compliance demonstration is necessary while process fuel gas and natural gas are the only fuels burned.

3. Testing Requirements:

Pursuant to Regulations 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

The permittee shall monitor the fuel consumption of each of the fuels (Process Fuel Gas and Natural Gas) used at Boiler #1 and #3.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the monthly consumption records for each type of fuel used at Boiler #1 and #3.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: Not applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(049) Equalization Tank (TK-1850)(EE-6):
1,500,000 gallon capacity
Internal Floating Roof
Date of construction: 1986

APPLICABLE REGULATIONS:
401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart FF, *National emission standard for benzene waste operations*, applies to the Equalization Tank.

1. Operating Limitations: None

2. Emission Limitations:
The flow-weighted annual average benzene concentration for the waste stream entering this tank shall not equal or exceed 10 ppmw as determined by the procedures specified in 40 CFR 61.355(c)(2) or 61.355(c)(3) [40 CFR 61.342(c)(2)].

Compliance Demonstration Method:
Compliance with this limitation shall be demonstrated at least once per year through the testing procedures described in **Testing Requirements** below.

3. Testing Requirements:
40 CFR 61.355(c)(3) - The permittee shall measure the benzene concentration in the waste stream annually to determine the flow-weighted annual average benzene concentration in accordance with the following procedures:

a. A minimum of three representative samples from each waste stream shall be collected. Where feasible, samples shall be taken from an enclosed pipe prior to the waste being exposed to the atmosphere [40 CFR 61.355(c)(3)(i)].
b. For samples collected from enclosed pipes, the procedures described in 40 CFR 61.355(c)(3)(ii) shall be used.
c. When sampling from an enclosed pipe is not feasible, the three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of benzene prior to sampling [40 CFR 61.355(c)(3)(iii)].
d. Each waste sample shall be analyzed using one the following test methods to determine the benzene concentration in the waste stream [40 CFR 61.355(c)(3)(iv)] - Method 8020, 8021, 8240, 8260, 602, or 624.

4. Specific Monitoring Requirements:
The permittee shall measure the benzene concentration in the waste stream annually using the methods described above. The flow weighted annual average shall be calculated by averaging the results of the samples analyses as described in 40 CFR 61.355(c)(3)(v).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(049) Equalization Tank (TK-1850)(EE-6)

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. 40 CFR 61.356(b) - A list of all waste streams at this facility that are subject to 40 CFR 61, Subpart FF.
b. 40 CFR 61.356(b) - An indicated whether or not the waste stream is controlled for benzene emissions in accordance with the provisions of 40 CFR 61, Subpart 61.
c. 40 CFR 61.356(b)(1) - For each waste stream not controlled for benzene emissions, a summary of all test results, calculations and other documentation used to determine the following information for the waste stream:
    i. Waste stream identification;
    ii. Water content;
    iii. Whether or not the waste stream is a process wastewater stream;
    iv. Annual waste quantity;
    v. Range of benzene concentrations;
    vi. Annual average flow-weighted benzene concentration; and
    v. Annual benzene quantity.

6. Specific Reporting Requirements:

40 CFR 61.357(d)(2) - The permittee shall submit to the division an annual report summarizing the following:

a. Total annual benzene quantity from facility waste determined in accordance with 40 CFR 61.355(a).
b. Table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions.
c. For each waste stream not being controlled for benzene emission, the information listed in 40 CFR 61.357(a)(3)(i) through (a)(3)(vi) shall be included in the table.

If the information required in the annual report has not changed in the following year, the permittee may submit a statement to that effect.

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(052) Cooling Tower

APPLICABLE REGULATIONS:
401 KAR 63:010, *Fugitive emissions*, applies to the cooling tower.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   All reasonable measures shall be taken to prevent particulate matter from becoming airborne from the cooling tower at all times [401 KAR 63:010, Section 3(1)].

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:** None

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(445) Contaminated Waste Storage Tank
1,200,000 gallon capacity
Fixed Roof
Date of construction: 1982
Equipped with closed vent system going to the Westlake Monomers incinerators - Oxy Incinerator (453) or Primary Thermal Incinerator (530).

(446) Stormwater Wastewater Storage Tank
1,200,000 gallon capacity
Fixed Roof
Date of construction: 1985
Equipped with closed vent system going to the Westlake Monomers incinerators - Oxy Incinerator (453) or Primary Thermal Incinerator (530).

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the 445 and 446 tanks listed above.

1. Operating Limitations:
For ***each*** of the tanks listed above:
a. 40 CFR 63.133(a)(2)(i) - The permittee shall operate and maintain a fixed roof on the tank and a closed-vent system that routes the organic hazardous air pollutant vapors vented from the wastewater tank to a control device.
b. 40 CFR 63.133(b)(1)(i) - Except as provided in 40 CFR 63.133(b)(4), the fixed roof and all openings (eg, access hatches, opening ports, and gauge wells) shall be maintained in accordance with the requirements specified in 40 CFR 63.148.
c. 40 CFR 63.133(b)(1)(ii) - Each opening of the fixed roof shall be maintained in a closed position (e.g. covered by a lid) at all times that the wastewater tank contains a Group I wastewater stream or residual removed from a Group I wastewater stream except when it is necessary to use the opening for wastewater sampling, removal, or for equipment inspection, maintenance, or repair.
d. The control device shall be designed and operated in accordance with 40 CFR 63.148.

2. Emission Limitations:
For ***each*** of the tanks listed above:
The total organic hazardous compound emissions, less methane and ethane, or total organic hazardous air pollutant emissions vented to the control device shall be reduced by 95 percent by weight or greater [40 CFR 63.139(c)(1)(i)].

3. Testing Requirements: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(445) Contaminated Waste Storage Tank

(446) Stormwater Wastewater Storage Tank

4. Specific Monitoring Requirements:

For ***each*** of the tanks listed above:

a. The permittee shall visually inspect the fixed roof and all openings of the tank for leaks on a semi-annual basis [40 CFR 63.143(a)].
b. For the control device, the permittee shall comply with the requirements in 40 CFR 63.139(d) [40 CFR 63.143(e)].
c. The permittee shall monitor the required parameters for the control device [40 CFR 63.143(e)(1)].

5. Specific Recordkeeping Requirements:

For ***each*** of the tanks listed above:

40 CFR 63.147(b) - The permittee shall maintain records of the following information:

a. Each inspection of the fixed roof and all openings of the tank;
b. Each inspection of the control device; and
c. Continuous records of the monitored parameters for the control device.

6. Specific Reporting Requirements:

40 CFR 63.146(c), (e) - The permittee shall submit to the division semi-annual reports including the following information:

a. Results of each tank inspection in which a control equipment failure was identified including the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and description of the nature of and the date the repair was made.
b. The periods when the monitored parameters of the control device were outside the established ranges.

7. Specific Control Equipment Operating Conditions:

See requirements for the Oxy Incinerator (453) and Primary Thermal Incinerator (530).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(EE-4) Wastewater Strippers Operation
Constructed - 1979

Description - The wastewater stripper system steam strips VOCs, primarily Ethylene Dichloride and Vinyl Chloride, from process and sump wastewater streams. This system vents to Westlake Monomers incinerators - Oxy Incinerator (453) or Primary Thermal Incinerator (530).

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the Wastewater Strippers Operation.

1. Operating Limitations:

a. The permittee shall operate the wastewater steam strippers at all times when organic hazardous air pollutant are being processed through them.
b. 40 CFR 63.138(d) - The permittee shall operate and maintain the wastewater steam strippers in compliance with the requirements of the design steam stripper option including the following:
   i. Minimum active column height of 5 meters;
   ii. Countercurrent flow configuration with a minimum of 10 actual trays;
   iii. Minimum steam flow rate of 0.04 kilograms of steam per liter of wastewater feed within the column;
   iv. Minimum wastewater feed temperature to the steam strippers of 95EC, or minimum column operating temperature of 95EC.
   v. Maximum liquid loading of 67,100 liters per hour per square meter; and
   vi. Operate at nominal atmospheric pressure.

2. Emission Limitations:

a. 40 CFR 63.139(c)(4) - The wastewater treatment system shall vent to a control device, or a combination of control devices, which shall reduce the total organic compound emissions, less methane and ethane, or total organic hazardous air pollutant emissions in such a manner that 95 weight percent is either removed, or destroyed by chemical reaction with the scrubbing liquid.
b. 40 CFR 63.139(d)(2) - Compliance with this emission limit shall be demonstrated by a design evaluation that addresses the vent stream characteristics and control device operating parameters specified in 40 CFR 63.139(d)(2)(i) through (d)(2)(vii).

3. Testing Requirements: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(EE-4) Wastewater Strippers Operation

4. Specific Monitoring Requirements:

40 CFR 63.143(b) - For the wastewater steam strippers, the permittee shall maintain, calibrate, and operate according to manufacturer=s specifications, continuous monitoring devices for the following parameters:

i. Steam flow rate;
ii. Wastewater feed mass flow rate; and
iii. Wastewater feed temperature or column operating temperature.

5. Specific Recordkeeping Requirements:

The permittee shall maintain continuous records of the following information:

i. Steam flow rate;
ii. Wastewater feed mass flow rate; and
iii. Wastewater feed temperature or column operating temperature.

6. Specific Reporting Requirements:

40 CFR 63.152(c)(2) - The permittee shall submit to the division semi-annual reports including the following information:

a. The periods when monitored parameters are outside their established ranges.
b. The number of excused excursions for the semi-annual reporting period.
c. Daily average values of the monitored parameters for excused and unexcused excursions.

7. Specific Control Equipment Operating Conditions:

See requirements for the Oxy Incinerator (453) and Primary Thermal Incinerator (530).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C. ENERGY AND ENVIRONMENTAL PLANT:

(EE-5) Secondary Wastewater Treatment System
Constructed - 1979

Description - The secondary water treatment system consists of a primary clarifier, EQ tank, biotreater, secondary clarifier, and a sludge biotreater. There will be fugitive emissions of volatile organic compounds from each component of this system.

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** None

WESTLAKE MONOMERS PLANT

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(407) Catoxid Reactor Startup Vent
Constructed - 1974
Control: Scrubber
Emissions: Exhaust from the catoxid reactor is released during startup.

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(412) No. 3 River EDC Tank
Capacity: 500,206 gallon
Constructed: 1966
Currently out of service, but may be used to store contaminated stormwater and wastewater stripper bottoms

(413) No. 4 River EDC Tank
Capacity: 500,206 gallon
Constructed: 1966
Currently out of service, but may be used to store contaminated stormwater and wastewater stripper bottoms

APPLICABLE REGULATIONS:
None, the permittee has determined that the storage of contaminated stormwater and wastewater stripper bottoms will not subject these tanks to any applicable regulation.

1. Operating Limitations: None

2. Emission Limitations: None

3. Testing Requirements: None

4. Specific Monitoring Requirements: None

5. Specific Recordkeeping Requirements: None

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(438) No. 1 EDC Shore Tank
599,458 gallon capacity
Internal Floating Roof
Date of construction: 1980

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the No. 1 EDC Shore Tank.

1. Operating Limitations:
The tank shall be equipped with an internal floating roof and a double seal system in accordance with 40 CFR 63.119(b).

2. Emission Limitations: None

3. Testing Requirements:
See General Condition **G**. (d).

4. Specific Monitoring Requirements:
40 CFR 63.120(a)(3) - The permittee shall perform visual inspections of the roof, seals, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed. Visual inspections shall be performed at least once every 5 years after April 22, 1997 or at least once every 10 years after April 22, 1997 if an annual inspection is performed through manholes and roof hatches on the fixed roof. A record of each inspection shall be kept with any deficiencies noted and proper maintenance shall be performed.

5. Specific Recordkeeping Requirements:
The permittee shall keep records of the following information:
a. Dimensions and capacity of the tank for the lifetime of the tank.
b. All visual inspections performed under 63.120(a)(3). Deficiencies shall be noted.

6. Specific Reporting Requirements:
The permittee shall report the following information:
a. Notification of compliance status as required by 40 CFR 63.152(b).
b. Periodic reports as required by 40 CFR 63.152(c), including the results of each inspection conducted in accordance with 40 CFR 63.120 (a) in which a failure [as defined by 40 CFR 63.122(d)] is detected in the control equipment.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(438) No. 1 EDC Shore Tank

6. Specific Reporting Requirements: (continued)

c. When the tank is refilled after it has been emptied and degassed, the permittee shall notify the division in writing at least 30 calendar days prior to the refilling. If the refilling is not planned and the permittee could not have known about the inspection 30 calendar days in advance of refilling. The permittee shall notify the division at least 7 calendar days prior to refilling.

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(439) No. 2 EDC Shore Tank
599,458 gallon capacity
Fixed Roof
Date of construction: 1980
Control: Vented to Oxy Incinerator (453) or Primary Thermal Incinerator (530) for control of organic HAPs

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the No. 2 EDC Shore Tank.

1. Operating Limitations:
During a planned routine maintenance, emissions from the No. 2 EDC Shore Tank shall be vented to a backup control device.

2. Emission Limitations:
The tank shall be equipped with a closed vent system and a control device designed and operated to reduce inlet emissions of total organic hazardous air pollutants by 95 percent or greater [40 CFR 63.119(e)(1)].

3. Testing Requirements:
a. 40 CFR 63.120(d)(1)(ii) - The performance test required by 40 CFR 63.116(c) shall be used to demonstrate compliance with 40 CFR 63.119(e). Compliance shall be determined through the results of the latest performance test performed as required by 40 CFR 63.116(c).
b. See General Condition **G**. (d).

4. Specific Monitoring Requirements:
See Specific Monitoring Requirements for the Oxy Incinerator (453) and the Primary Thermal Incinerator (530).

5. Specific Recordkeeping Requirements:
40 CFR 63.123 - The permittee shall maintain records of the following information:
a. Dimensions and capacity of the storage vessel for the lifetime of the tank.
b. All measured values of the parameters continuously monitored in accordance with 40 CFR 63.120(d)(5).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(439) No. 2 EDC Shore Tank

5. Specific Recordkeeping Requirements:

c. The planned routine maintenance performed on the control device, when the back-up control device was not available, including the duration of each time the control device does not meet the specifications of 40 CFR 63.119(e)(1) due to the planned routine maintenance. This record shall include the following information:
   i. The first time of the day and date the requirements of 40 CFR 63.119(e)(1) were not met at the beginning of the planned routine maintenance.
   ii. The first time of day and date the requirements of 40 CFR 63.119(e)(1) were met at the conclusion of the planned routine maintenance.

d. The occurrence and duration of each malfunction of the control device or the continuous monitoring systems, when the back-up control device was not available, including the action taken and whether it complies with the permittee=s startup, shutdown, and malfunction plan.

e. All calibration checks and maintenance for the continuous monitoring systems.

f. Daily average values for each parameter monitored each operating day.

6. Specific Reporting Requirements:

The permittee shall report to the division, the following information [40 CFR 63.122]:

a. The Initial Notification as required by 40 CFR 63.152(b).

b. The Notification of Compliance Status as required by 40 CFR 63.152(b). This shall include the following information:
   i. A monitoring plan containing the following:
      (A) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained.
      (B) An explanation of the criteria used for selection of the parameter or parameters to be monitored.
      (C) The frequency with which monitoring will be performed.
      (D) Identification of the storage vessel and control device for which the performance test will be submitted.
      (E) Identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.
   ii. The operating range for each monitoring parameter identified in the monitoring plan, which shall represent the conditions for which the control device is being properly operated and maintained.
   iii. Results of the performance test required by 40 CFR 63.116(c).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(439) No. 2 EDC Shore Tank

6. Specific Reporting Requirements: (continued)

c. Periodic reports as required by 40 CFR 63.152(c) including the following information:

i. A description of the planned routine maintenance that is anticipate to be performed for the control device, when the back-up control device will not be available, during the next 6 months including the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

ii. A description of the planned routine maintenance that was performed for the control device, when the back-up control device was not available, during the previous 6 months including the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of 40 CFR 63.119(e)(1), due to planned routine maintenance.

iii. A description of each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with 40 CFR 63.120(d)(3)(i). This description shall include an identification of the control device for which the measured parameters to be outside of the established ranges and the cause for the measured parameters to be outside of the established ranges.

7. Specific Control Equipment Operating Conditions:

a. The storage tank shall be operated at all times with a closed vent system and a control device with 95 percent control efficiency, except during control system malfunctions. During planned routine maintenance, this vessel shall be vented to a back-up control device to meet the requirements of 40 CFR 63.119(e)(1). The control device shall be operated and maintained such that the monitored parameters remain with in the range specified in the Notification of Compliance Status. Planned routine maintenance of the control device, during which the control device does not meet the requirements of 40 CFR 63.119(e)(1) shall not exceed 240 hours per year.

b. See Requirements for the Oxy Incinerator (453) and the Primary Thermal Incinerator (530).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(441) North/South Cracking Sump Tank
3,000 gallon capacity
Fixed Roof
Date of construction: 1979
Control: Vented to Oxy Incinerator (453) or Primary Thermal Incinerator (530) for control of organic HAPs

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the North/South Cracking Sump Tank.

1. Operating Limitations:

a. The permittee shall operate and maintain a fixed roof and closed vent system that routes the organic hazardous air pollutant vapors to a control device.
b. The fixed roof and all openings shall be maintained in accordance with the requirements specified in 40 CFR 63.148.
c. Each opening of the fixed roof shall be maintained in a closed position at all times that the wastewater contains a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream except when it is necessary to used the opening for wastewater sampling, removal, or for equipment inspection, maintenance, or repair.
d. The control device shall be designed, operated, and inspected in accordance with the requirements of 40 CFR 63.139.

2. Emission Limitations:

This tank shall be controlled by a control device that reduces the total organic compound emissions, less methane and ethane, or total organic compound emissions vented to it by 95 percent by weight or greater. [40 CFR 63.139(c)(1)(i)]

3. Testing Requirements: None

4. Specific Monitoring Requirements:

a. The permittee shall conduct the following inspections.
   i. Annual inspection of the control device in accordance with the requirements of 40 CFR 63.139. See emission point 453 or 530.
   ii. Semiannual inspection of the tank for improper work practices including, but not limited to, leaving open any access door or other opening when such door or opening is not in use.
   iii. Semiannual inspections for control equipment failures including, but not limited to, a crack or gap in a gasket, joint, lid, or cover or broken equipment.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(441) North/South Cracking Sump Tank

4. Specific Monitoring Requirements: (continued)

b. Except as provided in 40 CFR 63.140, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and completed within 45 calendar days after identification. If a failure that is detected during the required inspection can not be repaired within 45 calendar days, and the vessel can not be emptied within 45 calendar days, the permittee may use up to two extensions of up to 30 additional days. Documentation of the extension shall be kept including a description of the failure, documentation that alternate storage capacity is unavailable, and specify a schedule of actions to ensure that the control equipment will be repaired or the vessel will be emptied.

5. Specific Recordkeeping Requirements:

40 CFR 63.147 (b) - The permittee shall keep documentation identifying the wastewater stored in this tank as Group 1 under and explaining that it must be handled and treated in accordance with the requirements of 40 CFR 63 of Subpart G.

6. Specific Reporting Requirements:

See Reporting Requirements for Emission Points 453 (Oxy Incinerator) and 530 (Primary Incinerator).

7. Specific Control Equipment Operating Conditions:

See Operating Conditions for Emission Point 453 (Oxy Incinerator) and 530 (Primary Incinerator).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(442) East Cracking Sump Tank
3,000 gallon capacity
Fixed Roof
Date of construction: 1979
Control: Vented to Oxy Incinerator (453) or Primary Thermal Incinerator (530) for control of organic HAPs

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the East Cracking Sump Tank.

1. Operating Limitations:

a. The permittee shall operate and maintain a fixed roof and closed vent system that routes the organic hazardous air pollutant vapors to a control device.
b. The fixed roof and all openings shall be maintained in accordance with the requirements specified in 40 CFR 63.148.
c. Each opening of the fixed roof shall be maintained in a closed position at all times that the wastewater contains a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream except when it is necessary to used the opening for wastewater sampling, removal, or for equipment inspection, maintenance, or repair.
d. The control device shall be designed, operated, and inspected in accordance with the requirements of 40 CFR 63.139.

2. Emission Limitations:

This tank shall be controlled by a control device that reduces the total organic compound emissions, less methane and ethane, or total organic compound emissions vented to it by 95 percent by weight or greater. [40 CFR 63.139(c)(1)(i)]

3. Testing Requirements: None

4. Specific Monitoring Requirements:

a. The permittee shall conduct the following inspections.
   i. Annual inspection of the control device in accordance with the requirements of 40 CFR 63.139. See emission point 453 or 530.
   ii. Semiannual inspection of the tank for improper work practices including, but not limited to, leaving open any access door or other opening when such door or opening is not in use.
   iii. Semiannual inspections for control equipment failures including, but not limited to, a crack or gap in a gasket, joint, lid, or cover or broken equipment.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(442) East Cracking Sump Tank

4. Specific Monitoring Requirements: (continued)

b. Except as provided in 40 CFR 63.140, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and completed within 45 calendar days after identification. If a failure that is detected during the required inspection can not be repaired within 45 calendar days, and the vessel can not be emptied within 45 calendar days, the permittee may use up to two extensions of up to 30 additional days. Documentation of the extension shall be kept including a description of the failure, documentation that alternate storage capacity is unavailable, and specify a schedule of actions to ensure that the control equipment will be repaired or the vessel will be emptied.

5. Specific Recordkeeping Requirements:

40 CFR 63.147 (b) - The permittee shall keep documentation identifying the wastewater stored in this tank as Group 1 under and explaining that it must be handled and treated in accordance with the requirements of 40 CFR 63 of Subpart G.

6. Specific Reporting Requirements:

See Reporting Requirements for Emission Points 453 (Oxy Incinerator) and 530 (Primary Incinerator).

7. Specific Control Equipment Operating Conditions:

See Operating Conditions for Emission Point 453 (Oxy Incinerator) and 530 (Primary Incinerator).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(449) Oxychlorination Reactor Emergency Vent

Description - The Oxychlorination Reactor vents to the Oxychlorination Incinerator during startup. during shutdown at the incinerator, emissions will be vented from this emergency vent directly to atmosphere.

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the Oxychlorination Reactor Emergency Vent.

1. Operating Limitations:
During shutdown of the incinerator, process vents will vent to this emergency vent in accordance with the Startup, Shutdown, and Malfunction Plan [40 CFR 63.114(d)].

2. Emission Limitations: None

3. Testing Requirements: None

4. Specific Monitoring Requirements:
a. 40 CFR 63.114(d)(1) - The permittee shall install, maintain, and operate a flow indicator that indicates whether vent stream flow is present at least once every 15 minutes. The flow indicator shall be installed at the entrance to the emergency vent.
b. The permittee shall continuously monitor the time and duration of each emergency vent opening [40 CFR 63.118(a)(3)].

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the following information:
a. Hourly records of whether the flow indicator was operating and whether flow was detected at any time under the hour [40 CFR 63.118(a)(3)].
b. Records of the times and durations of all periods when the vent stream from the Oxychlorination Reactor is not sent to the Oxy Incinerator or the flow indicator is not working [40 CFR 63.118(a)(3)].

6. Specific Reporting Requirements:
The permittee shall submit semi-annual reports to the division including the times and durations when the vent stream from the Oxychlorination Reactor is not sent to the Oxy Incinerator and is vented through the emergency vent [40 CFR 63.118(f)(3)]

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(450) Vacuum Column Feed Tank 1
46,484 gallon capacity
Internal Floating Roof
Date of construction: 1982

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the Vacuum Column Feed Tank 1.

1. Operating Limitations:
The tank shall be equipped with an internal floating roof and a double seal system in accordance with 40 CFR 63.119(b). The tank shall meet the specifications in 40 CFR 63.119 (b)(1) - (b)(6).

2. Emission Limitations: None

3. Testing Requirements: None

4. Specific Monitoring Requirements:
40 CFR 63.120(a)(3) - The permittee shall perform visual inspections of roof, seals, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed. Visual inspections shall be performed at least once every 5 years after April 22, 1997 or at least once every ten years after April 22, 1997 if an annual inspection is performed through manholes and roof hatches on the fixed roof. A record of each inspection shall be kept with any deficiencies noted and proper maintenance shall be performed.

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the following information:
a. Dimensions and capacity of storage vessel for the lifetime of the tank.
b. All visual inspections performed under 40 CFR 63.120(a)(3). Deficiencies shall be noted.

6. Specific Reporting Requirements:
40 CFR 63.122 - The permittee shall report to the division the following information:
a. The Initial Notification as required by 40 CFR 63.151(b).
b. The Notification of Compliance Status as required by 40 CFR 63.152(b).
c. Periodic Reports as required by 40 CFR 63.152(c), including the results of each inspection conducted in accordance with 40 CFR 63.120(a) in which a failure [as defined by 63.122(d)] is detected in the control equipment.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(450) Vacuum Column Feed Tank 1

6. Specific Reporting Requirements:

d. When the permittee is refilling this storage vessel after it has been emptied and degassed, the permittee shall notify the Administrator in writing at least 30 calendar days prior to the refilling. If the refilling is not planned and the permittee could not have known about the inspection 30 calendar days in advance of refilling, the permittee shall notify the Administrator at least 7 calendar days prior to the refilling.

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(451) Vacuum Column Feed Tank 2
46,484 gallon capacity
Internal Floating Roof
Date of construction: 1982

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the Vacuum Column Feed Tank 2.

1. Operating Limitations:
The tank shall be equipped with an internal floating roof and a double seal system in accordance with 40 CFR 63.119(b). The tank shall meet the specifications in 40 CFR 63.119 (b)(1) - (b)(6).

2. Emission Limitations: None

3. Testing Requirements: None

4. Specific Monitoring Requirements:
40 CFR 63.120(a)(3) - The permittee shall perform visual inspections of roof, seals, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed. Visual inspections shall be performed at least once every 5 years after April 22, 1997 or at least once every ten years after April 22, 1997 if an annual inspection is performed through manholes and roof hatches on the fixed roof. A record of each inspection shall be kept with any deficiencies noted and proper maintenance shall be performed.

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the following information:
a. Dimensions and capacity of storage vessel for the lifetime of the tank.
b. All visual inspections performed under 40 CFR 63.120(a)(3). Deficiencies shall be noted.

6. Specific Reporting Requirements:
40 CFR 63.122 - The permittee shall report to the division the following information:
a. The Initial Notification as required by 40 CFR 63.151(b).
b. The Notification of Compliance Status as required by 40 CFR 63.152(b).
c. Periodic Reports as required by 40 CFR 63.152(c), including the results of each inspection conducted in accordance with 40 CFR 63.120(a) in which a failure [as defined by 63.122(d)] is detected in the control equipment.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(451) Vacuum Column Feed Tank 2

6. Specific Reporting Requirements:

d. When the permittee is refilling this storage vessel after it has been emptied and degassed, the permittee shall notify the Administrator in writing at least 30 calendar days prior to the refilling. If the refilling is not planned and the permittee could not have known about the inspection 30 calendar days in advance of refilling, the permittee shall notify the Administrator at least 7 calendar days prior to the refilling.

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(453) Oxy Incinerator

Capacity:	67.1 mmBTU/hr each
Fuel:	Process gas and combined gaseous waste with supplemental natural gas
Emissions:	Process gas, waste gas, and natural gas combustion emissions
Controls:	Packed wet scrubber following incinerator for acid gas
Constructed:	1982

The following sources can be vented to either the Oxy Incinerator (453) or the Primary Thermal Incinerator (530):

South Synthesis:
Heads Columns
Vacuum Column
Product Column*
Vacuum Bottoms Tank
Lights Tank
A&B Oxyhydrochlorination Reactors (Absorber Vent)*
Crude Decanter
Process GCs
Dry Vent KO Pot
Tank Farm Vacuum Vent Header KO Pot
EDC Stripper

East Cracking:
East Furnace Feed Tank
East Sump
#4 Oxyhydrochlorination Reactor (Absorber Vent)*
WWS Drum
Process GCs
Blowdown Scrubber

South Cracking:
South Furnace Feed Tank
Lights Column
Hiboil Column
Drying Column
Flash Vaporizer
Process GCs

North Cracking:
North Furnace Feed Tank
Light Column
Hiboil Column
Stripout Tank
North Sump
Process GCs

North Synthesis:
HCL Neutralization Tank
Dry VCM, Dry EDC, Wet VCM, Wet EDC, Depressuring and Tank Farm Vacuum Vent Header KO Pots

Tank Farm:
No. 2, 7, 8, 9 EDC Shore Tanks
VCM Recovery System

Sources from Westlake CA&O Plant:
Contaminated Water Storage Tank (445)
Stormwater Storage Tank (446)
A and B Strippers (EE-4)

Sources from BFGoodrich-Geon Plant:
Bioventing Operation**
C Stripper in Groundwater Stripping System

*These sources only vent to the Oxy Incinerator
**These sources only vent to the Primary Incinerator
All other equipment can be vented to either incinerator

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(453) Oxy Incinerator

APPLICABLE REGULATIONS:

a. 401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the Oxy Incinerator.

b. 401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart F, *National emission standard for vinyl chloride*, applies to the Oxy Incinerator. However, pursuant to 40 CFR 63.110(f), the permittee is only required to comply with the provisions of 40 CFR 63 Subpart G.

1. Operating Limitations: None

2. Emission Limitations:

a. Total organic hazardous air pollutant emissions shall not exceed a concentration of 20 parts per million by volume, calculated on a dry basis, corrected to 3 percent oxygen [40 CFR 63.113(a)(2)].

b. Overall emissions of hydrogen halides and halogens, as defined in 40 CFR 63.111, shall be reduced by 95% or the outlet mass of total hydrogen halides and halogens shall be reduced to less than 0.45 kilograms per hour, whichever is less stringent [40 CFR 63.113(c)(1)].

3. Testing Requirements:

Compliance with the 20 parts per million by volume total organic HAP emission limit listed above shall be determined by the latest stack test performed on the emission unit as per Reference Method 18, and approved by the division.

4. Specific Monitoring Requirements:

a. 40 CFR 63.114(a) - The permittee shall maintain, calibrate and operate according to manufacturer=s specification, monitoring devices for the continuous measurement of::

i. The temperature in the firebox of the incinerator;

ii. pH of the scrubber effluent;

iii. Liquid flow at the scrubber influent; and

iv. Pressure drop across the scrubber.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(453) Oxy Incinerator

4. Specific Monitoring Requirements:

b. The permittee shall monitor the gas stream flow as described in the determination plan in accordance with 40 CFR 63.114(a)(4)(ii)(c). [40 CFR 63.114 (a)(4)(ii)]

c. The monitoring systems shall be reviewed on an annual basis for accuracy, as required in 40 CFR 63.103(c)(2)(iv).

5. Specific Recordkeeping Requirements:

40 CFR 63.118(a) - The permittee shall maintain records of the following information:

a. Continuous records of the following parameters:
   i. The temperature in the firebox of the incinerator;
   ii. pH of the scrubber effluent;
   iii. Liquid flow at the scrubber influent; and
   iv. Pressure drop across the scrubber.

b. Daily average values of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 CFR 63.152(f).

c. Gas stream flow determined as described in the permittee=s determination plan in accordance with 40 CFR 63.114(a)(4)(ii)(c).

d. Records of all calibration checks and maintenance for the continuous monitoring systems.

6. Specific Reporting Requirements:

40 CFR 63.118 - The permittee shall submit to the division semiannual reports including the following:

a. The daily average values of monitored parameters for all operating days when the daily average values were outside of the ranges established in the Notification of Compliance Status.

b. The duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data for Group 1 points.

c. Records of the occurrence and duration of each malfunction of the incinerator or the continuous monitoring systems.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(453) Oxy Incinerator

7. Specific Control Equipment Operating Conditions:

The permittee shall maintain the following parameters within the specified ranges for the daily averages, as specified on the Notification of Compliance Status:

a. The firebox temperature shall be maintained within 1600 to 2400 degrees Fahrenheit;
b. The pressure drop in the scrubber shall be maintained within 3 to 30 inches of water;
c. The pH of the scrubber circulation water shall be maintained at greater than 7.0;
d. The liquid circulation flow in the scrubber shall be maintained at an average rate of 630 gallons per minute;
e. The liquid/gas ratio in the scrubber shall be maintained at greater than 21 gallons of liquid per minute per 1000 standard cubic feet of gas per minute.

An **excursion** from the operating range specified above for any parameter is any 24-hour period during which the parameter monitored was outside the range specified above.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(454) No. 5 EDC Shore Tank
1,387,000 gallon capacity
Internal Floating Roof
Date of construction: 1978

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the No. 5 EDC Shore Tank.

1. Operating Limitations:
The tank shall be equipped with an internal floating roof and a double seal system in accordance with 40 CFR 63.119(b).

2. Emission Limitations: None

3. Testing Requirements:
See General Condition **G**. (d).

4. Specific Monitoring Requirements:
40 CFR 63.120(a)(3) - The permittee shall perform visual inspections of the roof, seals, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed. Visual inspections shall be performed at least once every 5 years after April 22, 1997 or at least once every 10 years after April 22, 1997 if an annual inspection is performed through manholes and roof hatches on the fixed roof. A record of each inspection shall be kept with any deficiencies noted and proper maintenance shall be performed.

5. Specific Recordkeeping Requirements:
The permittee shall keep records of the following information:
a. Dimensions and capacity of the tank for the lifetime of the tank.
b. All visual inspections performed under 63.120(a)(3). Deficiencies shall be noted.

6. Specific Reporting Requirements:
The permittee shall report the following information:
a. Notification of compliance status as required by 40 CFR 63.152(b).
b. Periodic reports as required by 40 CFR 63.152(c), including the results of each inspection conducted in accordance with 40 CFR 63.120 (a) in which a failure [as defined by 40 CFR 63.122(d)] is detected in the control equipment.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(454) No. 5 EDC Shore Tank

6. Specific Reporting Requirements: (continued)

c. When the tank is refilled after it has been emptied and degassed, the permittee shall notify the division in writing at least 30 calendar days prior to the refilling. If the refilling is not planned and the permittee could not have known about the inspection 30 calendar days in advance of refilling. The permittee shall notify the division at least 7 calendar days prior to refilling.

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(455) No. 6 EDC Shore Tank
1,387,000 gallon capacity
Internal Floating Roof
Date of construction: 1978

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the No. 6 EDC Shore Tank.

1. Operating Limitations:
The tank shall be equipped with an internal floating roof and a double seal system in accordance with 40 CFR 63.119(b).

2. Emission Limitations: None

3. Testing Requirements:
See General Condition **G**. (d).

4. Specific Monitoring Requirements:
40 CFR 63.120(a)(3) - The permittee shall perform visual inspections of the roof, seals, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed. Visual inspections shall be performed at least once every 5 years after April 22, 1997 or at least once every 10 years after April 22, 1997 if an annual inspection is performed through manholes and roof hatches on the fixed roof. A record of each inspection shall be kept with any deficiencies noted and proper maintenance shall be performed.

5. Specific Recordkeeping Requirements:
The permittee shall keep records of the following information:
a. Dimensions and capacity of the tank for the lifetime of the tank.
b. All visual inspections performed under 63.120(a)(3). Deficiencies shall be noted.

6. Specific Reporting Requirements:
The permittee shall report the following information:
a. Notification of compliance status as required by 40 CFR 63.152(b).
b. Periodic reports as required by 40 CFR 63.152(c), including the results of each inspection conducted in accordance with 40 CFR 63.120 (a) in which a failure [as defined by 40 CFR 63.122(d)] is detected in the control equipment.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(455) No. 6 EDC Shore Tank

6. Specific Reporting Requirements: (continued)

c. When the tank is refilled after it has been emptied and degassed, the permittee shall notify the division in writing at least 30 calendar days prior to the refilling. If the refilling is not planned and the permittee could not have known about the inspection 30 calendar days in advance of refilling. The permittee shall notify the division at least 7 calendar days prior to refilling.

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(514 A/B) South Cracking Furnace #13
Rating: 60.0 mmBTU/hr each
Fuel: Process fuel gas, supplemented by natural gas
Date of construction: 1975

(526) North Cracking Furnace 1A
Rating: 56.0 mmBTU/hr each
Fuel: Process fuel gas, supplemented by natural gas
Date of construction: 1981

(527) North Cracking Furnace 2A
Rating: 56.0 mmBTU/hr each
Fuel: Process fuel gas, supplemented by natural gas
Date of construction: 1981

(534) EDC Cracking Furnace #3
Rating: 106.68 mmBTU/hr each
Fuel: Process fuel gas, supplemented by natural gas
Date of construction: 1993

(535) EDC Cracking Furnace #4
Rating: 106.68 mmBTU/hr each
Fuel: Process fuel gas, supplemented by natural gas
Date of construction: 1995

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(519) North Cracking Decoking Pot
Date of construction: 1973

(520) South Cracking Decoking Pot
Date of construction: 1973

(521) East Cracking Decoking Pot
Date of construction: 1973

Description - The decoking pots are used for decoking the cracking furnace coils. The decoking pots are essentially a submerged vent scrubber used to control particulate emissions.

APPLICABLE REGULATIONS:
401 KAR 61:020, *Existing Process Operations*, applies to the emissions of particulate matter from the North, South, and East Decoking Pots.

1. Operating Limitations: None

2. Emission Limitations:
For *each* Decoking Pot:
a. Particulate emissions shall not exceed 2.58 pounds per hour [401 KAR 61:020, Section 3 (2)].
b. Visible emissions shall not equal or exceed 20 percent opacity [401 KAR 61:020, Section 3 (1)].
c. The submerged quench scrubber associated with each decoking pot shall control emissions of particulate matter and be operated properly in accordance with manufacturer=s specifications and/or standard operating procedures at all times the furnace coils are decoked. The permittee is required to use the submerged quench scrubber associated with each decoking pot in order meet the respective particulate matter emission standard for each pot.

Compliance Demonstration Method:
For *each* Decoking Pot:
a. Mass Emission Standard:
During periods of normal operation of the submerged quench scrubber, no compliance demonstration is necessary.

b. Opacity Limit:
During periods of normal operation of the submerged quench scrubber, no compliance demonstration is necessary.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(519)	North Cracking Decoking Pot
(520)	South Cracking Decoking Pot
(521)	East Cracking Decoking Pot

2. Emission Limitations:

Compliance Demonstration Method:

c. Use of Scrubber:

The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when a cracking furnace is decoked but the corresponding submerged quench scrubber is not in operation.

3. Testing Requirements: None

4. Specific Monitoring Requirements: None

5. Specific Recordkeeping Requirements:

The permittee shall maintain a record of the annual number of decokes at each pot.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(524) Vinyl Chloride Flare
Constructed: 1967

Description - The Vinyl Chloride Flare is used for emergency relief valve discharges from equipment in the EDC-VCl plant and as a control device for residual leaked material from relief valves, rupture disks and emergency shutdown equipment. The presence of the flare pilot flame will be monitored to ensure proper operation of the flare for safety purposes.

APPLICABLE REGULATIONS:
401 KAR 63:015, *Flares,* applies to the Vinyl Chloride Flare.

1. Operating Limitations: None

2. Emission Limitations:
Visible emissions from the Vinyl Chloride Flare shall not exceed twenty (20) percent opacity for more than three (3) minutes in any one (1) day [401 KAR 63:015, Section 3].

Compliance Demonstration Method:
Whenever waste gas is sent to the Vinyl Chloride Flare, the permittee shall perform the monitoring and recordkeeping requirements listed under **4. Specific Monitoring requirements** and **5. Specific Recordkeeping Requirements**.

3. Testing Requirements: None

4. Specific Monitoring Requirements:
Whenever waste gas is sent to the Vinyl Chloride Flare for combustion, the permittee shall monitor the flare for visible emissions and maintain the records described in item 5.a.

5. Specific Recordkeeping Requirements:

a. Whenever waste gas is sent to the Vinyl Chloride Flare for combustion, the permittee shall maintain the following records:

i. Whether any air emissions were visible from the flare;

If no visible emissions are observed, then no further observations or records are required. If visible emissions are observed, the permittee shall perform **one** of the following:

ii. The permittee shall perform a Method 9 reading for the flare. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and the date of certification; **OR**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(524) Vinyl Chloride Flare

5. Specific Recordkeeping Requirements:

a. ii. The permittee shall observe and record in the daily log the following additional information regarding the flare:
   (1) The color of the emissions;
   (2) Whether the emissions were light or heavy;
   (3) The total duration of the visible emission incident;
   (4) The cause of the abnormal emissions; and
   (5) Any corrective actions taken.

b. The permittee shall maintain records of all routine and non-routine maintenance activities performed at the flare.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(530) Primary Thermal Incinerator
Capacity: 60.0 mmBTU/hr each
Fuel: Process gas and combined gaseous waste with supplemental natural gas
Emissions: Process gas, waste gas, and natural gas combustion emissions
Controls: Packed wet scrubber following incinerator for acid gas
Constructed: 1982

The following sources can be vented to either the Oxy Incinerator (453) or the Primary Thermal Incinerator (530):

South Synthesis:
Heads Columns
Vacuum Column
Product Column*
Vacuum Bottoms Tank
Lights Tank
A&B Oxyhydrochlorination Reactors (Absorber Vent)*
Crude Decanter
Process GCs
Dry Vent KO Pot
Tank Farm Vacuum Vent Header KO Pot
EDC Stripper

East Cracking:
East Furnace Feed Tank
East Sump
#4 Oxyhydrochlorination Reactor (Absorber Vent)*
WWS Drum
Process GCs
Blowdown Scrubber

South Cracking:
South Furnace Feed Tank
Lights Column
Hiboil Column
Drying Column
Flash Vaporizer
Process GCs

North Cracking:
North Furnace Feed Tank
Light Column
Hiboil Column
Stripout Tank
North Sump
Process GCs

North Synthesis:
HCL Neutralization Tank
Dry VCM, Dry EDC, Wet VCM, Wet EDC, Depressuring and Tank Farm Vacuum Vent Header KO Pots

Tank Farm:
No. 2, 7, 8, 9 EDC Shore Tanks
VCM Recovery System

Sources from Westlake CA&O Plant:
Contaminated Water Storage Tank (445)
Stormwater Storage Tank (446)
A and B Strippers (EE-4)

Sources from BFGoodrich-Geon Plant:
Bioventing Operation**
C Stripper in Groundwater Stripping System

*These sources only vent to the Oxy Incinerator
**These sources only vent to the Primary Incinerator
All other equipment can be vented to either incinerator

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(530) Primary Thermal Incinerator

APPLICABLE REGULATIONS:

a. 401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the Primary Thermal Incinerator.

b. 401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart F, *National emission standard for vinyl chloride*, applies to the Primary Thermal Incinerator. However, pursuant to 40 CFR 63.110(f), the permittee is only required to comply with the provisions of 40 CFR 63 Subpart G.

1. Operating Limitations: None

2. Emission Limitations:

a. Total organic hazardous air pollutant emissions shall not exceed a concentration of 20 parts per million by volume, calculated on a dry basis, corrected to 3 percent oxygen [40 CFR 63.113(a)(2)].

b. Overall emissions of hydrogen halides and halogens, as defined in 40 CFR 63.111, shall be reduced by 95% or the outlet mass of total hydrogen halides and halogens shall be reduced to less than 0.45 kilograms per hour, whichever is less stringent [40 CFR 63.113(c)(1)].

3. Testing Requirements:

Compliance with the 20 parts per million by volume total organic HAP emission limit listed above shall be determined by the latest stack test performed on the emission unit as per Reference Method 18, and approved by the division.

4. Specific Monitoring Requirements:

a. 40 CFR 63.114(a) - The permittee shall maintain, calibrate and operate according to manufacturer=s specification, monitoring devices for the continuous measurement of::

i. The temperature in the firebox of the incinerator;

ii. pH of the scrubber effluent;

iii. Liquid flow at the scrubber influent; and

iv. Pressure drop across the scrubber.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(530) Primary Thermal Incinerator

4. Specific Monitoring Requirements:

b. The permittee shall monitor the gas stream flow as described in the determination plan in accordance with 40 CFR 63.114(a)(4)(ii)(c). [40 CFR 63.114 (a)(4)(ii)]

c. The monitoring systems shall be reviewed on an annual basis for accuracy, as required in 40 CFR 63.103(c)(2)(iv).

5. Specific Recordkeeping Requirements:

40 CFR 63.118(a) - The permittee shall maintain records of the following information:

a. Continuous records of the following parameters:
   i. The temperature in the firebox of the incinerator;
   ii. pH of the scrubber effluent;
   iii. Liquid flow at the scrubber influent; and
   iv. Pressure drop across the scrubber.

b. Daily average values of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 CFR 63.152(f).

c. Gas stream flow determined as described in the permittee=s determination plan in accordance with 40 CFR 63.114(a)(4)(ii)(c).

6. Specific Reporting Requirements:

40 CFR 63.118 - The permittee shall submit to the division semiannual reports including the following:

a. The daily average values of monitored parameters for all operating days when the daily average values were outside of the ranges established in the Notification of Compliance Status.

b. The duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data for Group 1 points.

c. Records of the occurrence and duration of each malfunction of the incinerator or the continuous monitoring systems.

d. Records of calibration checks and maintenance for the continuous monitoring systems will be maintained.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(530) Primary Thermal Incinerator

7. Specific Control Equipment Operating Conditions:

The permittee shall maintain the following parameters within the specified ranges for the daily averages, as specified on the Notification of Compliance Status:

a. The firebox temperature shall be maintained within 1600 to 2400 degrees Fahrenheit;
b. The pressure drop in the scrubber shall be maintained within 0.3 to 3 inches of water;
c. The pH of the scrubber circulation water shall be maintained at greater than 7.7;
d. The liquid circulation flow in the scrubber shall be maintained at an average rate of 300 gallons per minute;
e. The liquid/gas ratio in the scrubber shall be maintained at greater than 18 gallons of liquid per minute per 1000 standard cubic feet of gas per minute.

An **excursion** from the operating range specified above for any parameter is any 24-hour period during which the parameter monitored was outside the range specified above.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(734) No. 7 EDC Shore Tank
1,325,825 gallon capacity
Fixed Roof
Date of construction: 1990
Control: Vented to Oxy Incinerator (453) or Primary Thermal Incinerator (530) for control of organic HAPs

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the No. 7 EDC Shore Tank.

1. Operating Limitations:
During a planned routine maintenance, emissions from the No. 7 EDC Shore Tank shall be vented to a backup control device.

2. Emission Limitations:
The tank shall be equipped with a closed vent system and a control device designed and operated to reduce inlet emissions of total organic hazardous air pollutants by 95 percent or greater [40 CFR 63.119(e)(1)].

3. Testing Requirements:
40 CFR 63.120(d)(1)(ii) - The performance test required by 40 CFR 63.116(c) shall be used to demonstrate compliance with 40 CFR 63.119(e). Compliance shall be determined through the results of the latest performance test performed as required by 40 CFR 63.116(c).

4. Specific Monitoring Requirements:
See Specific Monitoring Requirements for the Oxy Incinerator (453) and the Primary Thermal Incinerator (530).

5. Specific Recordkeeping Requirements:
40 CFR 63.123 - The permittee shall maintain records of the following information:
a. Dimensions and capacity of the storage vessel for the lifetime of the tank.
b. All measured values of the parameters continuously monitored in accordance with 40 CFR 63.120(d)(5).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(734) No. 7 EDC Shore Tank

5. Specific Recordkeeping Requirements:

c. The planned routine maintenance performed on the control device, when the back-up control device was not available, including the duration of each time the control device does not meet the specifications of 40 CFR 63.119(e)(1) due to the planned routine maintenance. This record shall include the following information:
   i. The first time of the day and date the requirements of 40 CFR 63.119(e)(1) were not met at the beginning of the planned routine maintenance.
   ii. The first time of day and date the requirements of 40 CFR 63.119(e)(1) were met at the conclusion of the planned routine maintenance.

d. The occurrence and duration of each malfunction of the control device or the continuous monitoring systems, when the back-up control device was not available, including the action taken and whether it complies with the permittee=s startup, shutdown, and malfunction plan.

e. All calibration checks and maintenance for the continuous monitoring systems.

f. Daily average values for each parameter monitored each operating day.

6. Specific Reporting Requirements:

The permittee shall report to the division, the following information [40 CFR 63.122]:

a. The Initial Notification as required by 40 CFR 63.152(b).

b. The Notification of Compliance Status as required by 40 CFR 63.152(b). This shall include the following information:
   i. A monitoring plan containing the following:
      (A) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained.
      (B) An explanation of the criteria used for selection of the parameter or parameters to be monitored.
      (C) The frequency with which monitoring will be performed.
      (D) Identification of the storage vessel and control device for which the performance test will be submitted.
      (E) Identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.
   ii. The operating range for each monitoring parameter identified in the monitoring plan, which shall represent the conditions for which the control device is being properly operated and maintained.
   iii. Results of the performance test required by 40 CFR 63.116(c).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(734) No. 7 EDC Shore Tank

6. Specific Reporting Requirements: (continued)

c. Periodic reports as required by 40 CFR 63.152(c) including the following information:

i. A description of the planned routine maintenance that is anticipate to be performed for the control device, when the back-up control device will not be available, during the next 6 months including the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

ii. A description of the planned routine maintenance that was performed for the control device, when the back-up control device was not available, during the previous 6 months including the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of 40 CFR 63.119(e)(1), due to planned routine maintenance.

iii. A description of each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with 40 CFR 63.120(d)(3)(i). This description shall include an identification of the control device for which the measured parameters to be outside of the established ranges and the cause for the measured parameters to be outside of the established ranges.

7. Specific Control Equipment Operating Conditions:

a. The storage tank shall be operated at all times with a closed vent system and a control device with 95 percent control efficiency, except during control system malfunctions. During planned routine maintenance, this vessel shall be vented to a back-up control device to meet the requirements of 40 CFR 63.119(e)(1). The control device shall be operated and maintained such that the monitored parameters remain with in the range specified in the Notification of Compliance Status. Planned routine maintenance of the control device, during which the control device does not meet the requirements of 40 CFR 63.119(e)(1) shall not exceed 240 hours per year.

b. See Requirements for the Oxy Incinerator (453) and the Primary Thermal Incinerator (530).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(735) No. 8 EDC Shore Tank
1,325,825 gallon capacity
Fixed Roof
Date of construction: 1992
Control: Vented to Oxy Incinerator (453) or Primary Thermal Incinerator (530) for control of organic HAPs

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the No. 8 EDC Shore Tank.

1. Operating Limitations:
During a planned routine maintenance, emissions from the No. 8 EDC Shore Tank shall be vented to a backup control device.

2. Emission Limitations:
The tank shall be equipped with a closed vent system and a control device designed and operated to reduce inlet emissions of total organic hazardous air pollutants by 95 percent or greater [40 CFR 63.119(e)(1)].

3. Testing Requirements:
40 CFR 63.120(d)(1)(ii) - The performance test required by 40 CFR 63.116(c) shall be used to demonstrate compliance with 40 CFR 63.119(e). Compliance shall be determined through the results of the latest performance test performed as required by 40 CFR 63.116(c).

4. Specific Monitoring Requirements:
See Specific Monitoring Requirements for the Oxy Incinerator (453) and the Primary Thermal Incinerator (530).

5. Specific Recordkeeping Requirements:
40 CFR 63.123 - The permittee shall maintain records of the following information:
a. Dimensions and capacity of the storage vessel for the lifetime of the tank.
b. All measured values of the parameters continuously monitored in accordance with 40 CFR 63.120(d)(5).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(735) No. 8 EDC Shore Tank

5. Specific Recordkeeping Requirements:

c. The planned routine maintenance performed on the control device, when the back-up control device was not available, including the duration of each time the control device does not meet the specifications of 40 CFR 63.119(e)(1) due to the planned routine maintenance. This record shall include the following information:
   i. The first time of the day and date the requirements of 40 CFR 63.119(e)(1) were not met at the beginning of the planned routine maintenance.
   ii. The first time of day and date the requirements of 40 CFR 63.119(e)(1) were met at the conclusion of the planned routine maintenance.

d. The occurrence and duration of each malfunction of the control device or the continuous monitoring systems, when the back-up control device was not available, including the action taken and whether it complies with the permittee=s startup, shutdown, and malfunction plan.

e. All calibration checks and maintenance for the continuous monitoring systems.

f. Daily average values for each parameter monitored each operating day.

6. Specific Reporting Requirements:

The permittee shall report to the division, the following information [40 CFR 63.122]:

a. The Initial Notification as required by 40 CFR 63.152(b).

b. The Notification of Compliance Status as required by 40 CFR 63.152(b). This shall include the following information:
   i. A monitoring plan containing the following:
      (A) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained.
      (B) An explanation of the criteria used for selection of the parameter or parameters to be monitored.
      (C) The frequency with which monitoring will be performed.
      (D) Identification of the storage vessel and control device for which the performance test will be submitted.
      (E) Identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.
   ii. The operating range for each monitoring parameter identified in the monitoring plan, which shall represent the conditions for which the control device is being properly operated and maintained.
   iii. Results of the performance test required by 40 CFR 63.116(c).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(735) No. 8 EDC Shore Tank

6. Specific Reporting Requirements: (continued)

c. Periodic reports as required by 40 CFR 63.152(c) including the following information:

i. A description of the planned routine maintenance that is anticipate to be performed for the control device, when the back-up control device will not be available, during the next 6 months including the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

ii. A description of the planned routine maintenance that was performed for the control device, when the back-up control device was not available, during the previous 6 months including the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of 40 CFR 63.119(e)(1), due to planned routine maintenance.

iii. A description of each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with 40 CFR 63.120(d)(3)(i). This description shall include an identification of the control device for which the measured parameters to be outside of the established ranges and the cause for the measured parameters to be outside of the established ranges.

7. Specific Control Equipment Operating Conditions:

a. The storage tank shall be operated at all times with a closed vent system and a control device with 95 percent control efficiency, except during control system malfunctions. During planned routine maintenance, this vessel shall be vented to a back-up control device to meet the requirements of 40 CFR 63.119(e)(1). The control device shall be operated and maintained such that the monitored parameters remain with in the range specified in the Notification of Compliance Status. Planned routine maintenance of the control device, during which the control device does not meet the requirements of 40 CFR 63.119(e)(1) shall not exceed 240 hours per year.

b. See Requirements for the Oxy Incinerator (453) and the Primary Thermal Incinerator (530).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(736) No. 9 EDC Shore Tank
1,325,825 gallon capacity
Fixed Roof
Date of construction: 1994
Control: Vented to Oxy Incinerator (453) or Primary Thermal Incinerator (530) for control of organic HAPs

APPLICABLE REGULATIONS:
401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart G, *National emission standard for organic hazardous air pollutants from the synthetic organic chemical manufacturing industry for process vents, storage vessels, transfer operations, and wastewater*, applies to the No. 9 EDC Shore Tank.

1. Operating Limitations:
During a planned routine maintenance, emissions from the No. 9 EDC Shore Tank shall be vented to a backup control device.

2. Emission Limitations:
The tank shall be equipped with a closed vent system and a control device designed and operated to reduce inlet emissions of total organic hazardous air pollutants by 95 percent or greater [40 CFR 63.119(e)(1)].

3. Testing Requirements:
40 CFR 63.120(d)(1)(ii) - The performance test required by 40 CFR 63.116(c) shall be used to demonstrate compliance with 40 CFR 63.119(e). Compliance shall be determined through the results of the latest performance test performed as required by 40 CFR 63.116(c).

4. Specific Monitoring Requirements:
See Specific Monitoring Requirements for the Oxy Incinerator (453) and the Primary Thermal Incinerator (530).

5. Specific Recordkeeping Requirements:
40 CFR 63.123 - The permittee shall maintain records of the following information:
a. Dimensions and capacity of the storage vessel for the lifetime of the tank.
b. All measured values of the parameters continuously monitored in accordance with 40 CFR 63.120(d)(5).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(736) No. 9 EDC Shore Tank

5. Specific Recordkeeping Requirements:

c. The planned routine maintenance performed on the control device, when the back-up control device was not available, including the duration of each time the control device does not meet the specifications of 40 CFR 63.119(e)(1) due to the planned routine maintenance. This record shall include the following information:
   i. The first time of the day and date the requirements of 40 CFR 63.119(e)(1) were not met at the beginning of the planned routine maintenance.
   ii. The first time of day and date the requirements of 40 CFR 63.119(e)(1) were met at the conclusion of the planned routine maintenance.

d. The occurrence and duration of each malfunction of the control device or the continuous monitoring systems, when the back-up control device was not available, including the action taken and whether it complies with the permittee=s startup, shutdown, and malfunction plan.

e. All calibration checks and maintenance for the continuous monitoring systems.

f. Daily average values for each parameter monitored each operating day.

6. Specific Reporting Requirements:

The permittee shall report to the division, the following information [40 CFR 63.122]:

a. The Initial Notification as required by 40 CFR 63.152(b).

b. The Notification of Compliance Status as required by 40 CFR 63.152(b). This shall include the following information:
   i. A monitoring plan containing the following:
      (A) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained.
      (B) An explanation of the criteria used for selection of the parameter or parameters to be monitored.
      (C) The frequency with which monitoring will be performed.
      (D) Identification of the storage vessel and control device for which the performance test will be submitted.
      (E) Identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.
   ii. The operating range for each monitoring parameter identified in the monitoring plan, which shall represent the conditions for which the control device is being properly operated and maintained.
   iii. Results of the performance test required by 40 CFR 63.116(c).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(736) No. 9 EDC Shore Tank

6. Specific Reporting Requirements: (continued)

c. Periodic reports as required by 40 CFR 63.152(c) including the following information:

i. A description of the planned routine maintenance that is anticipate to be performed for the control device, when the back-up control device will not be available, during the next 6 months including the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

ii. A description of the planned routine maintenance that was performed for the control device, when the back-up control device was not available, during the previous 6 months including the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of 40 CFR 63.119(e)(1), due to planned routine maintenance.

iii. A description of each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with 40 CFR 63.120(d)(3)(i). This description shall include an identification of the control device for which the measured parameters to be outside of the established ranges and the cause for the measured parameters to be outside of the established ranges.

7. Specific Control Equipment Operating Conditions:

a. The storage tank shall be operated at all times with a closed vent system and a control device with 95 percent control efficiency, except during control system malfunctions. During planned routine maintenance, this vessel shall be vented to a back-up control device to meet the requirements of 40 CFR 63.119(e)(1). The control device shall be operated and maintained such that the monitored parameters remain with in the range specified in the Notification of Compliance Status. Planned routine maintenance of the control device, during which the control device does not meet the requirements of 40 CFR 63.119(e)(1) shall not exceed 240 hours per year.

b. See Requirements for the Oxy Incinerator (453) and the Primary Thermal Incinerator (530).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(F1) Organic HAP Fugitives
(F2) Volatile HAP Fugitives
(F3) VOC Fugitives
(F4) Other Fugitives

The following is an approximate count of the total pipeline equipment at the entire Monomers plant. The pipeline equipment at all four emission points listed above is included in this total.

28,088	Flanges (*547 new*)	282	Open End Valves	2,768	Gas Valves
307	Relief Valves	138	Light Liquid Pumps	4	Compressors
5,737	Light Liquid Valves (*498 new*)				

NOTE - The pipeline equipment count listed above reflects an accurate count of the equipment as of the date of issuance of this permit but is not intended to limit the permittee to the exact numbers specified. The permittee may add or remove pipeline equipment without a permit revision as long as the equipment continues to comply with the applicable requirements listed below.

APPLICABLE REGULATIONS:

a. 401 KAR 63:002, which incorporates by reference federal regulation 40 CFR 63 Subpart H, *National emission standard for organic hazardous air pollutants for equipment leaks*, applies to the pipeline equipment in organic HAP service (F1 and F2).
b. 401 KAR 60:005, which incorporates by reference federal regulation 40 CFR 60 Subpart VV, *Standards of performance for equipment leaks of VOC in the synthetic organic chemicals manufacturing industry*, applies to the pipeline equipment in VOC service (F3).
c. 401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart F, *National emission standard for vinyl chloride*, applies to the pipeline equipment in *vinyl chloride service* listed above (F2).
d. 401 KAR 57:002, which incorporates by reference federal regulation 40 CFR 61 Subpart V, *National emission standard for equipment leaks*, applies to the pipeline equipment in *vinyl chloride service* listed above (F2).

For the purposes of this permit, the requirements of 40 CFR 60 Subpart VV, 40 CFR 61 Subparts F and V, and 40 CFR 63 Subpart H have been streamlined as provided in U.S. EPA White Paper Number 2 (March 5, 1996) on Part 70 Operating Permits. As a result, to satisfy the requirements of the four applicable regulations listed above, *the permittee is only required to comply with 40 CFR 63 Subpart H for Emission Points F1, F2, and F3*. All pipeline equipment in VOC, VHAP or vinyl chloride service shall be considered, for purposes of applicability and compliance with Subpart H, as if it were in organic hazardous air pollutant (HAP) service. Compliance with Subpart H shall be deemed to constitute compliance with Subparts VV, F, and V.

Note - There are no applicable requirements for Emission Point F4.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(F1) Organic HAP Fugitives
(F2) Volatile HAP Fugitives
(F3) VOC Fugitives

1. Operating Limitations: For the pipeline equipment, the permittee shall implement a leak detection and repair (LDAR) program containing the following elements:

a. Each piece of pipeline equipment represented by Emission Points F1, F2, and F3 shall be identified such that it can be distinguished readily from equipment that is not subject to 40 CFR 63 Subpart H [40 CFR 63.162 (c)].
b. When a leak is detected as specified in 40 CFR 63.163 and 63.164; 63.168 and 63.169; and 63:172 through 63.174, the procedures described in 40 CFR 63.162 (f) (1) - (3) shall be followed to identify the leaking piece.
c. Specific standards for each type of pipeline equipment described under **2. Emission Limitations** below.

Compliance Demonstration Method: Pursuant to 40 CFR 63.162 (a), compliance with 40 CFR 63 Subpart H shall be determined by review of the records required by 63.181 and the reports required by 63.182, review of performance test results, and by inspections.

2. Emission Limitations: The permittee shall incorporate the following elements in the required leak detection and repair (LDAR) program. If any of the equipment qualifies for the specific exemptions available in 40 CFR 63 Subpart H, the permittee shall maintain records of the reason(s) why the equipment is exempt.

a. Standards: Pumps in light liquid service [40 CFR 63.163]:

40 CFR 63.163 (a)	Implementation and compliance provisions
40 CFR 63.163 (b)	Monitoring requirements, leak detection levels, frequency of monitoring
40 CFR 63.163 (c)	Repair procedures and time frames
40 CFR 63.163 (d)	Calculation procedures to determine percent leaking pumps and requirements for quality improvement programs
40 CFR 63.163 (e)-(j)	Exemptions for specific types of pumps

b. Standards: Compressors [40 CFR 63.164]:

40 CFR 63.164 (a)-(e)	Operations requirements
40 CFR 63.164 (f)	Criteria for leak detection
40 CFR 63.164 (g)	Repair procedures and time frames
40 CFR 63.164 (h),(i)	Exemptions for specific types of compressors

c. Standards: Pressure relief devices in gas/vapor service [40 CFR 63.165]:

40 CFR 63.165 (a)	Operational requirements
40 CFR 63.165 (b)	Pressure release procedures
40 CFR 63.165 (c)-(d)	Exemptions for specific types of pressure relief devices

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(F1) Organic HAP Fugitives
(F2) Volatile HAP Fugitives
(F3) VOC Fugitives

2. Emission Limitations: (continued)

d. Standards: Sampling Connection Systems [40 CFR 63.166]:

40 CFR 63.166 (a)-(c)	Operational requirements

e. Standards: Open-ended valves or lines [40 CFR 63.167]:

40 CFR 63.167 (a)-(c)	Operational requirements
40 CFR 63.167 (d)-(e)	Exemptions for specific types of valves

f. Standards: Valves in gas/vapor service and in light liquid service [40 CFR 63.168]:

40 CFR 63.168 (a)	Operational requirements
40 CFR 63.168 (b)-(d)	Monitoring requirements and intervals
40 CFR 63.168 (e)	Calculation procedures to determine percent leaking valves
40 CFR 63.168 (f)	Leak repair time frames
40 CFR 63.168 (g)	First attempt repair procedures
40 CFR 63.168 (h)-(i)	Exemptions for unsafe-to-monitor and difficult-to-monitor valves

g. Standards: Pumps, valves, connectors, agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service [40 CFR 63.169]:

40 CFR 63.169 (a)	Monitoring requirements and frequency
40 CFR 63.169 (b)	Leak detection levels
40 CFR 63.169 (c),(d)	Leak repair time frames and procedures

h. Standards: Delay of repair [40 CFR 63.171]:

40 CFR 63.171	Allowances for delay of repair

i. Standards: Connectors in gas/vapor service and in light liquid service [40 CFR 63.174]:

40 CFR 63.174 (a)	Operational requirements
40 CFR 63.174 (b)	Monitoring requirements and intervals
40 CFR 63.174 (c)	Procedures for open connectors or connectors with broken seals
40 CFR 63.174 (d)	Leak repair time frames
40 CFR 63.174 (e)	Monitoring frequency for repaired connectors
40 CFR 63.174 (f)-(h)	Exemptions for unsafe-to-monitor, unsafe-to-repair, inaccessible, or ceramic connectors
40 CFR 63.174 (i)	Calculation procedures to determine percent leaking connectors
40 CFR 63.174 (j)	Optional credit for removed connectors

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(F1) Organic HAP Fugitives
(F2) Volatile HAP Fugitives
(F3) VOC Fugitives

2. Emission Limitations: (continued)

j. Quality improvement program for valves [40 CFR 63.175]:
Pursuant to 40 CFR 63.168 (d)(1)(ii), in Phase III, the permittee may elect to implement the following quality improvement programs if the percent of leaking valves is equal to or exceeds 2 percent:

40 CFR 63.175 (a)	Quality improvement program alternatives
40 CFR 63.175 (b)	Criteria for ending quality improvement programs
40 CFR 63.175 (c)	Alternatives following achievement of less than 2 percent leaking valves target
40 CFR 63.175 (d)	Quality improvement program to demonstrate further progress
40 CFR 63.175 (e)	Quality improvement program of technology review and improvement

k. Quality improvement program for pumps [40 CFR 63.176]:
Pursuant to 40 CFR 63.163 (d)(2), if, in Phase III, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps or three pumps at Emission Points F1, F2, and F3 leak, the permittee shall implement the following quality improvement programs for pumps:

40 CFR 63.176 (a)	Applicability criteria
40 CFR 63.176 (b)	Criteria for ending the quality improvement program
40 CFR 63.176 (c)	Criteria for resumption of the quality improvement program
40 CFR 63.176 (d)	Quality improvement program elements

Compliance Demonstration Method:
A copy of the leak detection and repair (LDAR) program meeting the criteria listed above shall be kept available at a readily accessible location for inspection.

3. Testing Requirements:

a. The permittee shall comply with the following test methods and procedures requirements pursuant to 40 CFR 63.180 (a):

40 CFR 63.180 (b)	Monitoring procedures, test methods and calibration procedures
40 CFR 63.180 (c)	Leak detection monitoring procedures
40 CFR 63.180 (d)	Procedures for determining organic HAP service applicability

Fulfill all testing requirement per **2. Emission Limitations**

b. See General Condition **G**. (d).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(F1) Organic HAP Fugitives
(F2) Volatile HAP Fugitives
(F3) VOC Fugitives

4. Specific Monitoring Requirements:

a. See **3. Testing Requirements** above.
b. Fulfill all monitoring requirements per **2. Emission Limitations**

5. Specific Recordkeeping Requirements: [40 CFR 63.181]

a. The permittee may comply with the recordkeeping requirements for Emission Points F1, F2, and F3 in one recordkeeping system if the system identifies each record by process unit and the program being implemented (e.g. quarterly monitoring, quality improvement) for each type of equipment. All records required by 40 CFR 63.181 shall be maintained in a manner that can be readily accessed at the plant site.
b. The permittee shall maintain all records pertaining to the pipeline equipment required by 40 CFR 63.181 (b).
c. For visual inspections, the permittee shall document that the inspection was conducted and the date of the inspection. These records shall be kept for a period of five years, according to 40 CFR 63.181 (c).
d. When a leak is detected, the information specified in 40 CFR 63.181 (d) shall be recorded and kept for five years.
e. If the permittee implements any of the quality improvement programs required by 40 CFR 63.175 and 63.176, the records specified in 40 CFR 63.181 (h)(1)-(9) shall be maintained for the period of the quality improvement program for Emission Points F1, F2, and F3.

6. Specific Reporting Requirements:

The permittee shall submit the following reports:

a. 40 CFR 63.182 (a)(1), Initial Notification. The permittee has fulfilled this requirement through documentation dated August 17, 1994 submitted to the division.
b. 40 CFR 63.182 (a)(2), Notification of Compliance Status. The permittee has fulfilled this requirement through documentation dated January 20, 1995 submitted to the Division.
c. 40 CFR 63.182 (a)(3), Periodic Reports - The permittee shall submit to the Division, semiannually, the information required by 40 CFR 63.182 (d)(2).

7. Specific Control Equipment Operating Conditions: Not applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

D. MONOMERS PLANT:

(457) South Synthesis Cooling Tower (2 existing cells, 1 new cell to be constructed)

(458) East Cracking Cooling Tower

(459) South Cracking Cooling Tower

APPLICABLE REGULATIONS:
401 KAR 63:010, *Fugitive emissions*, applies to each of the cooling towers listed above.

1. Operating Limitations:
None

2. Emission Limitations:
All reasonable measures shall be taken to prevent particulate matter from becoming airborne from the cooling towers at all times [401 KAR 63:010, Section 3(1)]. These measures shall include, but are not limited to the following:
The South Synthesis Cooling Tower cell to be constructed shall be equipped with a mist eliminator.

3. Testing Requirements:
For the South Synthesis Cooling Tower (457), see General Condition **G**. (d).

4. Specific Monitoring Requirements:
None

5. Specific Recordkeeping Requirements:
None

6. Specific Reporting Requirements:
None

7. Specific Control Equipment Operating Conditions:
None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

WESTLAKE CA&O PLANT:

	Description	Generally Applicable Regulation
(001)	HCl Acid Tank 1,000 gallons	None
(022)	HCl Acid Tank 19,000 gallons	None
(036)	Gasoline Storage Tank 1,000 gallons	401 KAR 61:050, Section 3(3)
(037)	Diesel Storage Tank 1,000 gallons	None
(043)	Diesel Storage Tank 300 gallons	None
(044)	Diesel Storage Tank 300 gallons	None
(067)	Polymer Tank 16 gallons	None
(823)	HCl Acid Tank 21,000 gallons	None
(824)	HCl Acid Tank 21,000 gallons	None
(825)	HCl Acid Tank 6,400 gallons	None
(842)	Chilled Water Tank 1,900 gallons	None
(847)	Diesel Fuel Tank 1,000 gallons	None

SECTION C - INSIGNIFICANT ACTIVITIES (continued)

WESTLAKE CA&O PLANT:

Description		Generally Applicable Regulation
(848)	Diesel Fuel Tank 1,000 gallons	None
(068)	Polymer Tank 10 gallons	None
(069)	Polymer Tank 4,000 gallons	None
(071)	Polymer Tank 700 gallons	None
(072)	Polymer Tank 400 gallons	None
(---)	Four (4) Propylene Bullets 36,000 gallons	None
(---)	Two (2) C4 Spheres 108,000 gallons	None
(---)	Four (4) Ethylene Spheres 215,000 gallons	None
(302)	Barge Unloading/Loading	None
(303)	Tank Car Unloading/Loading	None
(304)	Coke Trap	None
(316)	Injection Oil Tank 7,500 gallons	None
(325)	Tank Truck Unloading/Loading	None
(331)	Inhibitor Make-up Tank 1,000 gallons	None

SECTION C - INSIGNIFICANT ACTIVITIES (continued)

WESTLAKE CA&O PLANT:

Description		Generally Applicable Regulation
(340)	Inhibitor Tank 1,000 gallons	None
(341)	Fuel Stabilizer Tank 1,000 gallons	None
(361)	Turbinol Tank 240 gallons	None
(362)	Turbinol Tank 500 gallons	None
(365)	Antifoulant Chemical Tank 1000 gallons	None
(367)	Turbinol Tank 240 gallons	None
(318)	Methanol Storage Tank 3000 gallons	None
(332A)	Fuel Oil Storage Tank 495,000 gallons	None
(332B)	Fuel Oil Storage Tank 96,000 gallons	None
(337)	Ethylene Stormwater Tank 250,000 gallons	None
(ET-2)	Ethylene System Fugitive	None
(ET-4)	Feedgas System Fugitive	None
(ET-5)	Propylene Column System Fugitive	None
(ET-6)	Demethanizer System Fugitive	None
(ET-7)	J-T Recovery System Fugitive	None
(ET-9)	Quench & Fuel Gas System Fugitive	None

SECTION C - INSIGNIFICANT ACTIVITIES (continued)

WESTLAKE CA&O PLANT:

Description		Generally Applicable Regulation
(ET-10)	Secondary Demethanizer Column System Fugitive	None
(ET-11)	Debutanizer System Fugitive	None
(ET-17)	Depropanizer System Fugitive	None
(CA-7)	Wastewater Treatment Operations Fugitive	401 KAR 63:021
(038)	Diesel Fuel Tank 500 gallons	401 KAR 63:021
(039)	Diesel Fuel Tank 500 gallons	401 KAR 63:021
(051)	Pump Barrier Fluid Tank 500 gallons	None
(---)	Secondary Wastewater Treatment Fugitive	None
(---)	Laboratory Fume Hoods	401 KAR 63:021
(326)	Ethylene Furnace Decoking	401 KAR 61:020
(043)	HCl Acid Tank 1,000 gallons	401 KAR 63:021
(070)	Wastewater Storage Tank Wastewater (EDC Mix) 240,000 gallons	None
(073)	Wastewater Storage Tank Wastewater (EDC Mix) 240,000 gallons	None
(886A)	Brine Treatment HCl Tank 32% HCl 13, 200 gallons	None
(886B)	Brine Treatment HCl Tank 32% HCl 13, 200 gallons	None

SECTION C - INSIGNIFICANT ACTIVITIES (continued)

WESTLAKE CA&O PLANT:

Description		Generally Applicable Regulation
(883)	SSI Mix Tank Water, SSI drums (non volatile) 2, 200 gallons	None
(851)	HCl Regenerant HCl 5,500 gallons	None
(855)	H_2SO_4 Tank 93-98% Sulfuric Acid 7,500 gallons	None
(867)	Existing Prime H_2SO_4 Tank 93-98% Sulfuric Acid 24,000 gallons	None
(878)	Strong H_2SO_4 Tank 93-98% Sulfuric Acid 75 gallons	None
(879)	20% H_2SO_4 Tank 20% Sulfuric Acid 1,000 gallons	None
(880)	Cooling Tower Treatment Chemical Tank 1,000 gallons	None
(882)	Chilled Water Circulation Tank Propylene Glycol, Water	None
(888)	Drum Loading of Carbon Tetrachloride into Nitrogen Trichloride Eliminator	None
(313)	Dryer Regeneration Heater - Rating: 8.18 mmBTU/hr Fuel: Process fuel gas Date of construction: 1963	401 KAR 61:015

SECTION C - INSIGNIFICANT ACTIVITIES (continued)

WESTLAKE CA&O PLANT:

Description		Generally Applicable Regulation
(314)	Reactor Regeneration Heater - Rating: 2.27 mmBTU/hr Fuel: Process fuel gas Date of construction: 1963	401 KAR 61:015

NEW MEMBRANE CELL CHLOR-ALKALI PLANT:
The following insignificant activities will be added with the construction of the Membrane Cell Chlor-Alkali Plant.

Description		Generally Applicable Regulation
(868)	Saturator Sludge Tank - 7,600 gallons	None
(883)	SSI Mix Tank - 2,200 gallons	None
(852)	Membrane Cell Room Ventilation	None
(867)	Existing Prime H_2SO_4 Tank - 24,000 gallons	None

The following activities/units do not emit any regulated air pollutant(s) and maybe considered to be trivial activities:

(840)	Existing Caustic Tank - 860,000 gallons	None
(849)	Regeneration Effluent Tank - 13,200 gallons	None
(854)	20% NaOH Head Tank	None
(857)	Caustic Circulation Head Tank - 2,700 gallons	None
(859)	Caustic Blow Down Tank - 37,200 gallons	None
(858A)	32% Surge Tank - 20,000 gallons	None
(858B)	32% Surge Tank - 70,000 gallons	None
(860)	15% Caustic Tank - 11,900 gallons	None
(862)	Caustic Pump Tank - 8,980 gallons	None
(863A)	Evaporator Vacuum Pump Vent - 422 gallons	None
(863B)	Surface Condenser - 9,500 gallons	None
(864)	Condensate Tank - 26,000 gallons	None
(868)	Saturator Sludge Tank - 12,000 gallons	None
(869)	Raw Brine Feed Tank - 12,000 gallons	None
(870)	Brine Treatment Tank - 12,000 gallons	None
(870A)	Brine Treatment Tank - 12,000 gallons	None
(871)	Brine Treatment Tank - 12,000 gallons	None
(871A)	Brine Treatment Tank - 12,000 gallons	None
(873)	Filter Feed Tank - 12,000 gallons	None
(874)	Sludge Slurry Tank - 7,660 gallons	None
(876)	Ion Exchange Feed Tank - 18,490 gallons	None
(877)	Ultra Pure Brine Tank - 18,000 gallons	None

SECTION C - INSIGNIFICANT ACTIVITIES (continued)

NEW MEMBRANE CELL CHLOR-ALKALI PLANT:

Description		Generally Applicable Regulation
(884)	Saturator Feed Tank - 7,000 gallons	None

WESTLAKE MONOMERS PLANT:

Description		Generally Applicable Regulation
(536)	Pilot Lights on Flare	None
(537)	Chlorine Unloading in Vinyl Tank Farm	None
(021)	KO Tank TK-853	None
(046)	Betz Optimeen Tank 560 gallons	None
(048)	Betz Optimeen Tank 300 gallons	None
(049)	Betz Optimeen Tank 300 gallons	None
(050)	Ammonium Bisulfite Tank 5,000 gallons	None
(404)	Catalyst Transfer Jets/Hoppers 25,000 lbs/hr	None
(406)	Kerosene Tank 5,000 gallons	None
(410)	Solvesso Tank 1 5,643 gallons	None

SECTION C - INSIGNIFICANT ACTIVITIES (continued)

WESTLAKE MONOMERS PLANT:

Description		Generally Applicable Regulation
(411)	Solvesso Tank 2 5,643 gallons	None
(425)	Caustic Tank 45,000 gallons	None
(428A)	Caustic Tank 1,000 gallons	None
(428B)	Caustic Tank 100 gallons	None
(430)	Brine Chiller 1,700 gallons	None
(437)	Air Preheater 3,000 cu ft/hr	401 KAR 59:015
(448)	Catalyst Hopper 50,000 lbs/hr	None
(452)	Brine Chiller 3,760 gallons	None
(456)	Caustic Tank 13,668 gallons	None
(533)	Muriatic Acid 1 50,000 gallons	None
(533)	Muriatic Acid 2 50,000 gallons	None
(533)	Muriatic Acid 3 50,000 gallons	None
(533)	Muriatic Acid 4 16,700 gallons	None
(533)	Muriatic Acid 5 16,700 gallons	None

SECTION C - INSIGNIFICANT ACTIVITIES (continued)

WESTLAKE MONOMERS PLANT:

	Description	Generally Applicable Regulation
(601)	Sulfuric Acid 1 14,359 gallons	None
(602)	Sulfuric Acid 2 12,530 gallons	None
(538)	Vinyl Chloride Cylinder Loading	401KAR 63:002, National emission standards for hazardous air pollutants (40 CFR 63 Subpart H)
(539)	Piping Associated with Bromine Removal Process	401KAR 63:002, National emission standards for hazardous air pollutants (40 CFR 63 Subpart H)

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

Not applicable

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements.
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement;

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035, Permits, Section 7(1)(d)2 and 401 KAR 50:035, Permits, Section 7(2)(c)]

3. In accordance with the requirements of Regulation 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or authorized representatives to perform the following:
   a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
   b. Have access to and copy, at reasonable times, any records required by the permit:
      i. During normal office hours, and
      ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
   c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
      i. During all hours of operation at the source,
      ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii. During an emergency; and
   d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
      i. During all hours of operation at the source,
      ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii. During an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

5. Reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be reported to the division's Paducah Regional Office no later than the six-month anniversary date of this permit and every six months thereafter during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

   The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of Regulation 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to Section 6(1) of Regulation 401 KAR 50:035, Permits. All deviations (i.e., excursions[(1)], exceedences[(2)], and deviations from specific Operating Limitations) from permit requirements shall be clearly identified in the reports.

   The reports shall contain a summary of the following information:

   a. For each emission point for which specific monitoring (periodic or continuous) is required by this permit, whether the required monitoring was performed for the entire 6-month period covered by the report (Yes/No).
      For any periods during which the required monitoring was not performed, the report shall contain the following additional information:
      i. Duration of each incident.
      ii. The cause of the incident and any corrective action(s) taken.
   b. For each control device, whether any excursions (as defined in this permit) were recorded during the 6-month period covered by the report (Yes/No).
      If any excursions were recorded, the report shall contain the following information:
      i. Duration of the incident.
      ii. The cause of the incident and any corrective action(s) taken.
      iii. Whether the excursion resulted in the exceedence of an emissions standard.
   c. For each emission point and for each pollutant with a specific allowable emission limit, whether there were any exceedence(s) of an allowable emission limit (Yes/No).
      For each recorded exceedence, the report shall contain the following additional information:
      i. Duration of the incident.
      ii. The cause of the incident and any corrective action(s) taken.
   d. For each emission point with a specific operating limitation, whether there were any periods of deviation from the specified operating limitation (Yes/No).
      For each deviation, the report shall contain the following additional information:
      i. Duration of the deviation.
      ii. The cause of the deviation and any corrective action(s) taken.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

5. (1)An Aexcursion≅ is defined as any period (taking into account the appropriate averaging time) during which a control device operates outside the range specified by this permit.
(2)An Aexceedence≅ is defined as any period (taking into account the appropriate averaging time) during which the actual emission rate from any emission point exceeds the allowable emission limit specified in this permit for that emission point.

6. a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Paducah Regional Office concerning startups, shutdowns, or malfunctions as follows:
   i. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.

   b. In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedences covered by general condition 6 a. above) to the Division for Air Quality's Paducah Regional Office. Prompt reporting shall be defined as follows:
   For **excursions**:
   i. For short-term (less than or equal to 24-hours in duration) excursions from, or failure to record the parameters used to monitor the performance of control devices (thermal oxidizer, scrubbers, baghouses, etc), the permittee shall include a summary of the excursions in the bi-annual reporting required by Condition **F.**5. above.
   ii. For longer periods of excursion (greater than 24 hours in duration) or inability to record monitoring parameters, the permittee shall contact the Paducah Regional office within 72 hours (excluding weekends and holidays).

   For **exceedences**:
   i. For short-term exceedences (less than or equal to 24-hours in duration), the permittee shall include a summary of the excursions in the bi-annual reporting required by Condition **F.**5. above.
   ii. For longer periods of exceedences (greater than 24-hours in duration), the permittee shall contact the Paducah Regional office within 72 hours (excluding weekends and holidays).

   For **other requirements**:
   In the event that the permittee is unable to fulfill a requirement (such as a performance test, compliance certification submittal) within the timeframe specified herein, the permittee shall contact the Paducah Regional Office and the Frankfort Central office within 72 hours of expiration of the relevant timeframe. Extensions of the timeframes specified herein may be granted by the Division upon a satisfactory request showing that an extension is justified.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

7. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Paducah Regional Office and the U.S. EPA in accordance with the following requirements:
   a. Identification of each term or condition of the permit that is the basis of the certification;
   b. The compliance status regarding each term or condition of the permit;
   c. Whether compliance was continuous or intermittent; and
   d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
   f. The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. Annual compliance certifications should be mailed to each of the following addresses:

   Division for Air Quality
   Paducah Regional Office
   4500 Clarks River Road
   Paducah, KY 42003

   U.S. EPA Region IV
   Air Enforcement Branch
   Atlanta Federal Center
   61 Forsyth St.
   Atlanta, GA 30303-8960

   Division for Air Quality
   Central Files
   803 Schenkel Lane
   Frankfort, KY 40601

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.

9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, Permits, Section 7(3)(d) and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the division, in writing, information that the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

SECTION G - GENERAL CONDITIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, Permits, Section 7(3)(k)]

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, Permits, Section 7(3)(e)]

8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 50:035, Permits, Section 7(3)(h)]

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, Permits, Section 8(3)(b)]

11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, Permits, Section 7 (3)(g)]

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, Permits, Section 7(2)(b)5]

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, Permits, Section 8(3)(a)]

15 Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.

16. All previously issued construction and operating permits are hereby subsumed into this permit.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 50:035, Permits, Section 12]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Permit S-98-049 authorized construction of a new Membrane Cell Chlor Alkali plant at the Westlake CA&O facility. With this Title V permit, the construction timeframe for the Membrane Cell Chlor Alkali plant has been extended. Furthermore, the changes requested with the minor permit revision application dated June 9, 2000, have been incorporated in this permit. Therefore, this permit authorizes construction of the following units (these units collectively are henceforth referred to as the *Membrane Cell Plant*):

Emission Point	Description
801	Salt Handling and Transfer Operations (*modification of existing facility, increased throughput*)
849	Cooling Tower (*existing facility, a mist eliminator will be installed on this tower*)
877	Atmospheric Scrubber (*new construction*) - this scrubber will control chlorine emissions from the following sources (*to be constructed*): - Ammonia Removal Tank - Brine Head Tank - Ultra Pure Brine Tank Dechlorination Brine Tank - Sludge Storage Tank Spent Sulfuric Tank - Analyte Blowdown Tank - Miscellaneous continuous process tank vents
887	HCl Synthesis Scrubber (*new construction*)

Additionally, this permit authorizes construction of the insignificant activities associated with the new *Membrane Cell Plant* listed in Section C of this permit under >**NEW MEMBRANE CELL CHLOR-ALKALI PLANT**=.

2. This permit also authorizes modification of the Westlake Monomers facility. The following equipment will be part of this modification (these units collectively are henceforth referred to as the *Monomers Process Improvement Plan*):

Emission Point	Description
438	No. 1 EDC Shore Tank (*existing facility, increased throughput*)
439	No. 2 EDC Shore Tank (*existing facility, increased throughput*)
454	No. 5 EDC Shore Tank (*existing facility, increased throughput*)
455	No. 6 EDC Shore Tank (*existing facility, increased throughput*)
459	South Synthesis Cooling Tower (*existing facility, addition of a new cell to the tower*)
734	No. 7 EDC Shore Tank (*existing facility, increased throughput*)
735	No. 8 EDC Shore Tank (*existing facility, increased throughput*)
736	No. 9 EDC Shore Tank (*existing facility, increased throughput*)
F1	Organic HAP Fugitives (*existing facility, increased throughput, addition of new pipeline equipment*)
F2	Volatile HAP Fugitives (*existing facility, increased throughput, addition of new pipeline equipment*)
F4	Other Fugitives (*existing facility, increased throughput, addition of new pipeline equipment*)

SECTION G - GENERAL CONDITIONS (CONTINUED)

3. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

4. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's Paducah Regional Office in writing, with a copy to the division's Frankfort Central Office, notification of the following:
   a. The date when construction commenced.
   b. The date of start-up of the affected facilities listed in this permit.
   c. The date when the maximum production rate specified in the permit application was achieved.

5. a. Pursuant to State Regulation 401 KAR 50:035, Permits, Section 13(1), unless construction of the Membrane Cell Plant is commenced on or before 18 months after the proposed commencement date of the Membrane Cell Plant, or if construction of the Membrane Cell Plant is commenced and then stopped for any consecutive period of 18 months or more, or if construction of the Membrane Cell Plant is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the division upon a satisfactory request showing that an extension is justified.

Membrane Cell Plant	Proposed Commencement Date
Emission Points 801, 887, 877, 849	July 1, 2003

   b. Pursuant to State Regulation 401 KAR 50:035, Permits, Section 13(1), unless construction of the Monomers Process Improvement Plan is commenced on or before 18 months after the proposed commencement date of the Monomers Process Improvement Plan, or if construction of the Monomers Process Improvement Plan is commenced and then stopped for any consecutive period of 18 months or more, or if construction of the Monomers Process Improvement Plan is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the division upon a satisfactory request showing that an extension is justified.

Monomers Process Improvement Plan	Proposed Commencement Date
Emission Points 438, 439, 454, 455, 459, 734, 735, 736, F1, F2, and F4	Upon issuance of the draft permit

6. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.

SECTION G - GENERAL CONDITIONS (CONTINUED)

7. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with Regulation 401 KAR 50:055, General compliance requirements.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
   d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, Permits, Section 9(3)]

SECTION G - GENERAL CONDITIONS (CONTINUED)

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:
   RMP Reporting Center
   P.O. Box 3346
   Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information by the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

Not applicable

SECTION I - COMPLIANCE SCHEDULE

1. To implement any new monitoring, recordkeeping, and reporting requirements included herein for emission points already in operation, the division hereby authorizes a 90-day compliance extension, beginning with the issuance of this permit.

2. For new emission units covered under the Membrane Cell Plant (Emission Points 887, 877), the permittee shall implement all monitoring, reporting, and recordkeeping requirements included herein within 30 days of initial startup.